User Manual

PAM - Production Recording Software

Part 1

FAIRPORT
FARM SOFTWARE

Table of contents

Chapter 1

Introduction

Chapter Contents

Welcome to PAM

Thank you for choosing **PAM**.

This program was written to fill the requirements of those who need a powerful computerised recording system for agricultural production information. As margins are squeezed and management efficiency is increasingly put to the test, better and timely information becomes vital. **PAM** helps provide a better understanding of your farming operation.

Modern technologies have been incorporated into this program to give you a genuine management information system. You can make INFORMED decisions. You simply enter your daily events and **PAM** uses that data to deliver useful information in the form of reports and graphs.

We expect you will find some parts of the program are superfluous to your requirements. This is common in all "off-the-shelf" software. We hope however, you find everything you were hoping for in this program. If there is anything you think would help enhance the program, please don't hesitate to let us know. The program has reached its current state as a result of the input of many people in the past making suggestions.

Although **PAM** can be operated very simply using the mouse, we have written it to also be used with a keyboard. If you are used to using software that operates under Microsoft Windows®, you should find **PAM** quite easy to follow.

We hope you enjoy using **PAM** and that you gain pleasure and benefit from it.

Program registration instructions are on page 8.

Acknowledgments

Many people have contributed to this program. **PAM** began its life in 1988 and in the early years Dave Panell, Bruce Mattinson, Jim Fortune and Chris Oldham gave a great deal of assistance to me. I am indebted to Alan Moir and Colin Booth of Country Soft Pty Ltd and then Dalgety Essex Technologies Pty Ltd for giving **PAM** exposure and for giving me assistance in the early stages. Since the formation of Fairport Technologies, much help has been forthcoming from many of you out there using **PAM** 1.0 through to version you have today. The process of developing software is very much a cooperative effort and depends on feedback.

The version of PAM (PAM 3.x) which was superseded by the Windows version in 1998 laid a very sound foundation for the layout and functionality of this version. I am eternally indebted to Dairmuid Pigott for his tireless efforts and his skills in helping me build that final “DOS” series of PAM.

And finally ... I would especially like to thank the development team of this Windows version series of PAM who work "beyond the call" on this project, sometimes under duress!
Laurie Smithdale, Ben Gooch, Darren McGlenchy, John Wan and Paul Olsen. I also thanks those who contributed but who are no longer with Fairport: Dianne Zacher, Mark Niski, Bruce Hearder, Jones Daniel, Shah Ping Teng, Brendan Barker and John Breen.

Thank you all
Roger Wiese

Licence and warranty information

Software licence

FTI (1997) Pty Ltd, C/- PO Box 1046, South Perth, Western Australia ("Licensor" which expression includes its subsidiaries, agents, successors and assigns) is authorised to license this **PAM** software and related documentation (collectively "the Software").
Upon opening the sealed package and by using the Software, the end user ("You") accepts a **non-exclusive**, **non-transferable** Licence to use the Software on a single computer with a single CPU in accordance with the terms of this Licence. You may not **sub-license** the Software.
You may not use (or cause to be used) the Software for rental, as part of a service bureau (unless you have purchased the "MultiClient" version) or for any similar purpose. You may not modify, network, loan, distribute or create derivative works based upon the Software in whole or in part. You may not electronically transfer the Software from one computer to another over a network.

Restrictions on Use

You may not distribute unauthorised copies of the Software or accompanying written materials to others. You may not modify, adapt, translate, reverse engineer, decompile, disassemble, or create derivative works based on the Software. You may not modify, adapt, translate, or create derivative works based on the written materials without the prior written consent of Licensor.

Backup Copies

You are allowed to make one backup copy of the Software. You must reproduce the copyright notice on the backup copy.

Licence Fee

You must pay the Licence fee as determined at the time of entering into this Licence to Licensor or to one of Licensor's nominated dealers or distributors.

Title

Licensor retains title and ownership of the Software recorded on the original disks and all subsequent copies of the Software, regardless of the form or media in or on which the

original and other copies may exist. The Licence is not a sale of the original Software or any copy.

Industrial and Intellectual Property Rights

You acknowledge that any and all of the trademarks, trade names, trade secrets, copyright, and all other intellectual property rights used or embodied in connection with the Software are the sole property of Licensor. You will not during or at any time after the expiry or termination of the Licence in any way question or dispute the ownership by Licensor of any such rights.

Termination

The Licence continues in effect until terminated. The Licence will terminate automatically without notice from Licensor if You fail to comply with any provision of this Licence or if Licensor refunds the Licence fee to You. If the Licence is terminated, You must return to Licensor the written materials and all copies of the Software, including backup copies, if any.

Update Policy

Licensor may create, from time to time, updated versions of the Software. At its absolute discretion, Licensor may make such updates available to You if You have paid the update fee and returned the Registration Form to Licensor. Any update provided by Licensor to You will be governed by the terms and conditions of this Licence and a reference to Software in this Licence means and includes any such update.

Warranty

Licensor warrants to You that the disks upon which the Software is recorded are free from defects in materials and workmanship under normal use and service for a period of ninety (90) days from the date of delivery as evidenced by a copy of the receipt.
If within ninety (90) days You notify Licensor of a defect in the Software, which is not caused by use, abuse, accident or misapplication, then Licensor will at its discretion either:

(a) return the Licence fee; or

(b) replace the Software.

In the event that the Software is replaced pursuant to this clause, then the replacement will be warranted for the remainder of the original warranty period or thirty (30) days, whichever is longer.

Licensor does not warrant that the Software is error free or that use of the Software shall be uninterrupted.

Liability of Licensor

Except as expressly provided to the contrary in this Agreement, all terms, conditions, warranties, undertakings, inducements or representations whether express, implied, statutory or otherwise relating in any way to this Agreement, are excluded. Without limiting the generality of the preceding sentence, Licensor is not under any liability to You in respect of any loss or damage (including consequential loss or damage) however caused (whether by negligence or otherwise and whether as a result of loss of, damage to or corruption of data or otherwise) which may be suffered or incurred or which may arise directly or indirectly in respect of the Software or the failure or omission on the part of Licensor to comply with its obligations under this Agreement.

Where any Act or Parliament implies in this Agreement any term, condition or warranty, and that Act avoids or prohibits provisions in a contract excluding or modifying the application of or exercise of, or liability under such term, condition or warranty, such term, condition or warranty will be deemed to be included in this Agreement, but the liability of Licensor for any breach of such term, condition or warranty will be limited, at the option of Licensor, to any one or more of the following:

(a) if the breach relates to goods;

(i) the replacement of the goods or the supply of equivalent goods;

(ii) the repair of such goods;

(iii) the payment of the cost of replacing the goods or of acquiring equivalent goods; or

(iv) the payment of the cost of having the goods repaired; and

(b) if the breach relates to services:

(i) the supplying of the services again; or

(ii) the payment of the cost of having the services supplied again.

You warrant that You have not relied on any representation made by Licensor, which has not been stated expressly in this Agreement, or on any descriptions or illustrations or specifications contained in any document including any catalogues or publicity material produced by Licensor.

Waiver

Subject to this clause, any failure by Licensor to enforce any clause of this Licence, or any forbearance, delay or indulgence granted by Licensor to You, will not be construed as a waiver of Licensor's rights under this Licence.

Entire Agreement

This Licence constitutes the entire agreement between the parties for the subject matter referred to herein. Any prior arrangements, agreements, representations or undertakings are superseded. No modification or alteration of any clause of this Licence will be valid except in writing signed by each party.

Severability

If any provision of this Licence is held invalid, unenforceable or illegal for any reason, this Licence shall remain otherwise in full force apart from such provision, which shall be deemed, deleted.

Governing Law

This Licence will be governed by and construed according to the laws of the State of Western Australia. You hereby consent to the jurisdiction of the courts of Western Australia.

Rights Reserved

All rights not expressly granted in this Licence are reserved by Licensor.

Trademark Acknowledgments

MS-DOS, Windows, Access, Works and Excel are registered trademarks of Microsoft

Other products and marks mentioned in this documentation are trademarks or registered trademarks of the respective owners.

Registering your copy of PAM

When you first install the program, you will be requested to enter your trading name, address and other details. Please take the time to fill in all of the fields on this screen. If you have an e-mail address, please enter that too. The program requires this information before it can operate. The program will also need a customer serial number entered into it before it is completely "unlocked".

Although you need a serial number to "unlock" PAM, you will be able to run the program 20 times. After the 20th run, you will still be able to print a registration form and unlock your program but you no longer are able gain access to the program properly.

A special program registration form must be printed from the program. This form has on it a 9-digit number, which Fairport Technologies will use to generate your customer serial number. You can only obtain access to registration form when you start the program, so if you are using the program and then decide to register, you will need to exit then re-start **PAM** to print the form.

By registering **PAM** you will help us to know your hardware configuration and you will be entitled to the following benefits:

- Information on upgrades or revisions to **PAM**
- Free support "help notes" (which are mailed out from time to time to all registered users).

If you are unfamiliar with the meaning of the terms "menu option" and "pull-down menu", these will be described in the following chapter.

In most cases, your dealer will either have already organised the registration job for you or will assist you with the task.

About this manual

This user's manual for **PAM** is a comprehensive guide that contains all of the procedures you need to operate the program efficiently and effectively.

This manual may become superseded by changes within the software. From time to time the manual is revised without notice. Generally, if substantial new features are added to the software we published special purpose Help Notes on the Fairport web site / Support pages.

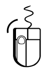
The program has "on-line" help which can be accessed by pressing the F1 function key while operating **PAM**. You will find that the on-line help is more comprehensive than the manual and is updated regularly by the Fairport team. Any updates of the help file can be obtained from our web site or with a program update.

Symbols and conventions used in this manual

To make reference to the keys on your keyboard we have used small pictures of keys like :

ENTER to represent the ENTER or RETURN key

F1 , F10 to represent the function keys F1 and F10.

If you have a mouse, the mouse symbol  is used to draw your attention to mouse operations.

Program menu items are written in *Bold Italics* and if we are referring to a sub-menu item or a sub-sub-menu item, we write it thus ... *Main menu item/ Sub-menu item/ Sub-sub-menu item.*

When we refer to the ARROW keys or the CURSOR keys we are talking about the keys used to move the cursor or menu selection highlight bar. These keys are :
↑ PG↓ ← → ↓ PG↑

How can we help you get the best from PAM?

Fairport Technologies has the following support strategy. For the first six months you have free access to Fairport's 1800 help line. Thereafter you will be invited to pay a fee for this service. The fee also entitles you to Fairport Club membership, which has other benefits like automatic software updates.

Before you call either Fairport or your dealer, check in the printed material that comes with the program for answers to your questions. Use the index table and the table of contents to locate the area in the manual most likely to cover the problem. You should also check the on-line help system in the program for possible clues. Access this everywhere with F1. There is also a FAQ help file, access this through the *Help/Frequently Asked Questions.*

If the answer can't be found your next step is to contact Fairport or the dealer who sold you the program.

Fairport Technologies offers a back-up help service to all dealers. If they can't solve your problem, they will contact Fairport Technologies and we will do our best to help you as soon as possible.

When using this service please bear in mind that the more information you can give us, the more able we will be to answer the problem. If at all possible a fax is preferable to a phone call. A fax will give us "hard copy" of your query and we can then prepare a written response.

Fairport Technologies can be contacted on the Internet... our e-mail address : help@fairport.com.au

We also have a web site .... http://www.fairport.com.au

The program error trapping system

The program has an error trapping system to catch any program errors that may have missed our testing processes.

If you should ever see the error trapping system-warning message you will see that you are given a range of choices.

In general it is advisable to select "Abort".

A file is maintained behind the scenes and the information that is contained in this file is s very handy to us when attempting to locate and fix the problem. So, please take a moment to print the error messages, where you have to option to "Print Fax" should you

see one on your screen. You can then either fax or post the printout to Fairport Technologies and we will act on the problem as quickly as possible. Error messages can also be attached to an e-mail.

What you need to run PAM

PAM will work with most IBM and compatible computers available today. Although in theory **PAM** will operate on any IBM PC that is capable of running Microsoft Windows® 95, 98, NT, 2000 or XP it does require a reasonably powerful computer to run well... but, as a general rule of thumb, if your computer is able to run Microsoft Windows® 95, it is powerful enough to run **PAM**.
The minimum requirements are :

- A computer with one hard disk a CD ROM drive or one floppy disk drive and 640k of RAM, 16 megabytes of Upper memory and the Windows 95 operating system.
- Screen type : a SVGA screen or better is recommended operating at a resolution of 800 X 600 or better.
- Printer requirements: **PAM** will print out on any printer supported by Windows.

Data file compatibility

The data files used by this program are 100% Microsoft Access 97 compatible (Microsoft SQL Server in the PAM Enterprise Series). The text output files created by this program are in ASCII text format. Any word processing program can edit them. Most reports can also be created as spreadsheet files in the "CSV" format. These files can be read into Microsoft Excel. For other spreadsheet programs, check your spreadsheet software for details.

Program operating speed

This program is a true "relational" database system and the operation involves a lot of disk reading and writing. The speed of operation will depend greatly upon the speed of your hardware (ie. the "clock" speed of your processor and the disk drive access speed). As the data files grow in size, the time needed to access

that data will increase. This should be more obvious in reporting than in other areas of program operation.
This is a fact of life in large database systems. Much effort has been and will continue to be devoted to reducing the processing time throughout the program wherever possible.
PAM will run much faster on more modern computers especially those which have extra memory installed.

Installing PAM

1. Once you place your Fairport CD in your CD-Rom drive, the browser screen for installing PAM should automatically appear. If not, select ***Start/Run***.
2. Type **(CD Drive Letter):\SETUP.EXE** in the ***Open*** box, (eg D:\setup.exe
3. Click “**OK**”

The installation procedure creates the directory **PAM** on your hard disk, then copies the files into that directory. The program files will then be "unpacked" - a process which may take several minutes.

How to start PAM

Double-click the PAM icon on your desktop, or select ***Start/Programs/PAM/PAM***

How to access the demonstration data

At the main menu

1. Go to the ***Utilities*** pull-down menu
2. Select ***Switch to Demonstration data***

Or... If you want to use the "Hot Key" press ALT+F7

To switch back to your data set, repeat the above sequence.

Where to from here?

The next chapter is a general reference chapter, which tells you in detail how to use the menus and the pick lists and other facilities general to the whole program.

We recommend that you read the whole of this manual (or at least skim through it) before running the program. This is not essential but it is recommended for one important reason. As you skim through the manual, your mind will be remembering *where in the manual* certain topics are discussed. You will be aware that the manual covers those topics and that they are there, should you need to come back to them some day.
However if you want to get on with running **PAM** do as follows:

If you're familiar with Windows 95 ....

As **PAM** is written to comply with the "Windows Standard", you might like to skip the next chapter and get on with running the program. You can always come back and refer to chapter 2 later if you are unsure about something.
You can go directly to chapter 3 - Program set up.

If you're relatively new to computers...

Please read the next chapter before going on to set things up in **PAM**. A quick read might save you some frustration.

Chapter 2

Menus, lists and function-keys

Chapter contents

Menus : What they are and how to operate them

Menus are used in computer software to display a list of options to the user; just like a menu in a restaurant.
Like your restaurant menu the options are (as much as possible) arranged in groups.
The menu options are usually ordered in a sequence so that the most frequently accessed option is listed first. These minor details are all designed to make software easier to use.

But what happens when you access one of these options?
Usually accessing a menu option will cause a part of the program to operate or "run". For example if you select an option called ***Customise your PAM program*** you will "run" the special part of the program which deals with setting general program options.
Some options only take you as far as *another* menu of options! (These are called sub-menus).
In this program menus are always either on your screen or just one keystroke (press of one key on your keyboard) away.

So, menus consist of a list of options. But in software only one can be selected at a time. No ordering sweets and coffee together!
The currently selected option can be distinguished from the rest because it is "highlighted" by the menu highlight bar.

In this program there are several ways to select menu options.

1. Move the highlight bar up or down the list of options with the cursor keys or arrow keys. ↑ and ↓ and when the required option is highlighted press ENTER
2. Press the "Hot letter" key associated with the required menu option. The hot letter is the underlined letter in the menu caption.
3. Click your left mouse button on the required menu option. This will have the same effect as both moving the highlight bar ↑ ↓ to the option AND pressing ENTER .

To exit out of any menu press ESC or click the left mouse button on the screen outside the menu border.

Pull-down menus

The main menu system in this program is called a "pull down menu" system. The pull down menu system consists of a **bar menu**, which is spread horizontally across the top of the screen and the **pull-down menus** which "hang down" from the options on the bar menu. These pull-down menus can be "closed" by pressing ESC or by clicking your left mouse button while the mouse cursor is not on the menu bar or the pull-down menu. (ie. Click your mouse on the background area.).
If you either intentionally or accidentally, "close" a pull down menu you must press ENTER or click on a menu option on the menu bar to display the pull down menu again.

Pop-up menus

Pop-up menus look much the same and are operated in the same way as the pull-down menus.
Pop-up menus are usually sub menus of pull-down menus.
Confused? Don't worry, this will make more sense when you're actually using them!
You will notice small arrowheads or triangles at the end of some of menu options. These indicate that a pop-up (sub-menu) will be displayed when that menu option is selected.

Horizontal separator lines in menus

You will also notice horizontal lines across some menus. These are to help separate menu options into related groups. These horizontal separators are not menu options and can not be selected.

Unavailable menu options

At times you may see menu options which are not available. They are visible on the list options but you can not select them. This is not a mistake! This has been done for internal reasons where it is inappropriate for a particular option to be selected.

Dialog boxes

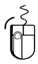
Dialog boxes are used throughout **PAM** to provide feedback and take guidance from you as you operate the program. There are dialog boxes, which allow you to make choices, and there are others, which just provide information.

Pick-lists and Multiselect-lists

Pick-lists are designed to make your life easier when it comes to getting data in and information out.

Pick-lists

Pick-lists are lists of items. Paddock names, farm names or rainfall recording stations and many other things are put in pick-lists to speed up data entry.
Selections are made by highlighting the required list item and pressing 

or by clicking on the item with the mouse 

What if an item is missing from the pick-list?

Take the following case ....
You are about to use a pick-list to enter data. You notice that the item has not yet been entered into the list.
For example ...
You are about to set up a new record for rainfall data. You get to the rainfall station field as shown below.

So in **PAM** it is a simple matter to update lists on the fly!

To add a new rainfall station, simply click on the *New...* button.
You will notice "*New...*" buttons alongside many pick-lists... in other cases you will find *Tools* buttons with *Add...* options.

Multiselect-lists

Multiselect-lists are used to select more than one item from a list. You will find them used mostly in the reporting sections of the program where a range of items may be selected. The Multiselect-list system allows you to select ALL items, ONE item or SEVERAL items.

- To select a single item click on that item with the LEFT mouse button.
- To DE-SELECT a single item click on it AGAIN with the left mouse button.
- To select a series of items simply click on each item

- To select ALL items you will find a *Select All* button for that purpose in most cases.
- To DE-SELECT ALL items you will find a *De-Select All* button for that purpose in most cases.
- To INVERT the selected items you will find an *Invert All* button for that purpose in most cases.

- To select a SINGLE item, highlight it then press the SPACE BAR
- To DE-SELECT a single item press SPACE BAR on it AGAIN.

PAM's Main Menu system

By the time you get to read this, you have probably already found your way around the main screen and worked it out for yourself! Because we have provided you with button “hints” and menu option hints and lots of on-line help on each of the menu options, this will be a brief summary only.

The Toolbar Buttons and Hot Keys

Moving your mouse across the toolbar buttons will reveal to you the action for each button… the leftmost button activates the Paddock Activities Diary, the rightmost button activates the help system.
You will notice that these buttons all have matching menu options on the main menu and most of them also have “Hot Keys”.
We have made much effort to enable multiple access to the main data entry systems in PAM. We are also aware that as people grow familiar with the software, they tend to look for shortcuts… hence the “Hot Key” access to the most commonly used parts.
Look for the hot keys listed on the menu options… eg

F2	activates the General Purpose Diary
F7	activates the Paddock Activities Diary
F8	activates the Paddock Season View
F9	activates the Livestock Activities Diary
F11	activates the Rainfall Recording System

Data Entry

This menu has on it the options for accessing the data entry sections of **PAM**.
The number of options displayed on this pull-down menu will depend on the modules you have purchased.
The bottom option is your EXIT option. However you can leave **PAM** immediately from anywhere by pressing ALT+F4 or by clicking the [X] button in the top right corner of the main screen.

Reports

The reports menu has on it the options for accessing the reporting and graphing sections of **PAM**.

The number of options displayed on this pull-down menu will depend on the version you have purchased. When you have a report selection panel on your screen you will see a small paragraph of explanation for each report in the bottom right corner of each panel.

Utilities

The utilities menu has on it the options for accessing the system-wide utilities like the farm filter, machinery costs calculator system and also for accessing the database maintenance systems and back-up and restore facility.

Configuration

The configuration menu has on it the options for setting up your program.
You will find special program configuration options such as the soil, leaf and water tests system settings and the livestock system settings.

The number of options displayed on this pull-down menu will depend on the version you have purchased. Use on-line help to gain a better understanding of any of the options on this menu.

MultiClient

If you are running the **PAM** MultiClient version, you will have this extra option on your main menu. The options are self-explanatory. As new clients come on stream, you use ***Add a client*** and thereafter you use ***Select a client*** to view and update it.

Help

The help menu provides you another way of accessing the on-line help system.
The *About* option will display a panel that tells you

- The version number and build data of the copy of PAM that your are running.
- A button to access your user details information… that enables you to alter your trading name if required.

Things you will need to know before getting started

Tip 1

The key is your EXIT key if you need to back out of any situation. Get used to using it from the start. If you are using a mouse you can escape out of any situation by clicking your left mouse button on the *Close* button.

Tip 2

Read any on-screen information carefully. Information boxes are used only where it was deemed necessary to help you understand a point, so take the time to read them first time you see them.

Tip 3

Wherever you see a Tools button, take a look at the options that it has in its menu.

Tip 4

Wherever you see a small down arrow on a data entry field, click on it to either display a pick-list or a calculator.

Tip 5

When entering data into a date field - the <Space Bar> or the key will pop-up a calendar... you will see a button with the letter "T" on it. This is used to locate the calendar on today's date.

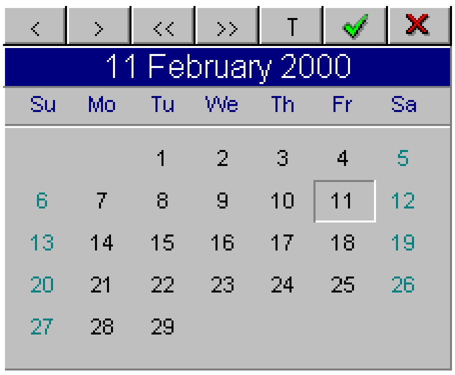


Table of Keys : Editing database fields

Key	Action
Left Arrow	Character left.
Right Arrow	Character right.
Ctrl+Left Arrow	Word left.
Ctrl+Right Arrow	Word right.
Shift TAB	Previous field.
TAB	Next field.
Home	Beginning of field.
End	Last character of field.
Del	Delete character at cursor position.
Backspace	Destructive backspace.
Ins	Toggle insert mode.
Ctrl+C	Copy highlighted text
Ctrl+V	Paste copied text into new field
F10	Terminate EDIT saving current fields.
Enter	Finish edit of current field and/or save and exit if the current field is the last field.

Notes (entering and viewing)

Notes boxes are provided for jotting down additional information.

Table of Keys : Notes Editing

Up arrow	Move up a line.
Down arrow	Move down a line.
Left arrow	Left one character.
Right arrow	Right one character.
Ctrl + Left	Left one word.
Ctrl + Right	Right one word.
Home	Left end of the line.
End	Right end of the line.
Ctrl + Home	Top of text.
Ctrl + End	Bottom of text.
Page Up	Up one window full.
Page Down	Down one window full.
Ctrl + C	Copy highlighted text.
Ctrl + V	Paste copied text.
Ins	Toggle insert/overtype.

Error traps (validation checks)

The program has many "error traps" or validation checks throughout. Some data entry errors will cause a message to be displayed explaining the problem, some will just stop you from continuing with the process.
Eg. You will not be able to enter an arable area greater than the total area.
You will not be allowed to enter a non-valid date in a date field.
You must enter a zero to "pad" out a date when the day or month number is less than 10.
Eg. January the 8th 2006 must be entered as:

```
08/01/06
(depending on the date "Regional Settings" that you
have in your Windows / Control Panel set up)
```

(this page left intentionally blank)

Chapter 3

Steps for setting up PAM

Chapter contents

Quick start:

A Enter a list of all Crops and Varieties used in your enterprise(s).

B Enter your list of Farms and Paddocks

Select the *Configuration* option from the main menu; - go to *Farms and Paddocks List* menu option

1. Enter your list of Farms by clicking on the **New Farm** button

Enter your Paddock information into the database; Paddock by Paddock using the **New Paddock** button until all Paddocks are entered. In each paddock you must enter your farm layout details. Click on the "Farm Layout" tab … then click the **Add** button

See a more detailed explanation later in this section on setting up this section.

C Create your fertiliser, chemicals, machinery lists

You will have now done enough to start entering data into your Paddock Activities Diary.

Did you know…?

If you know someone who is running PAM in your area, you can import their lists of crop types, chemicals, fertilizers, machinery operations etc. into your PAM … saving you <u>hours</u> of time.

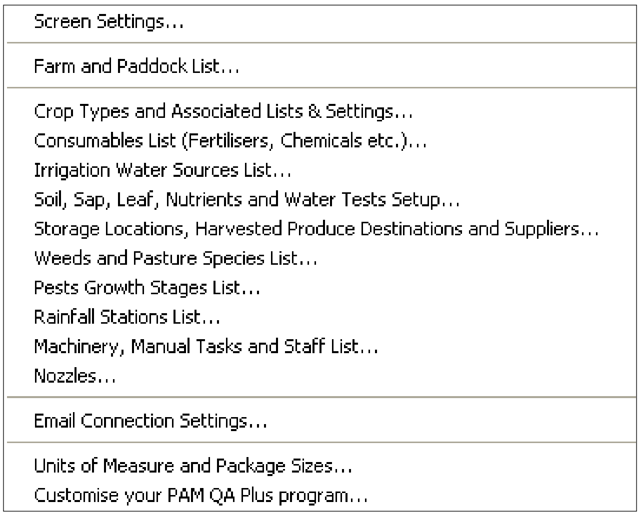
Under Utilities / Backup, Restore and Transfer data … Look for Import and Export Configuration Lists.

Maybe ask your dealer to help you with this facility when you are first setting up PAM.

Configuration

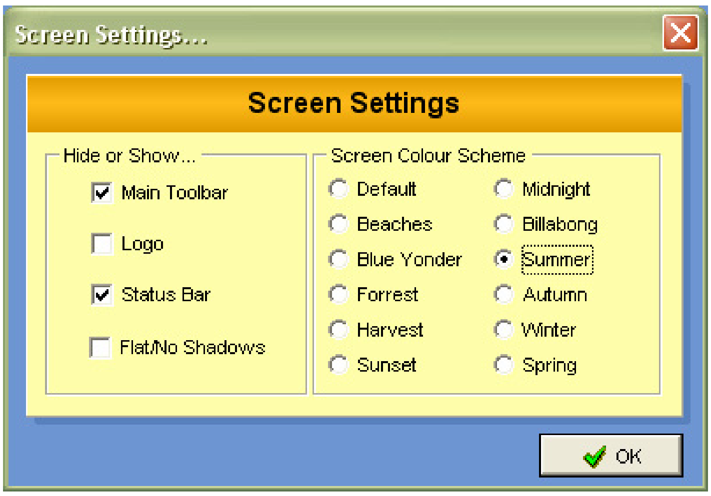
The pick-lists that you set up in the program configuration section are used throughout the program for data entry. **PAM** also allows you to add to these lists at the time of data entry. We call this "updating pick-lists on the fly".

Menu Options



Screen Settings

PAM has a number of colour schemes for you to choose from and other options to change the appearance of the screens to suit your taste... You can even hide the main tool bar if you desire.



PAM works best with your screen set to a high resolution…
To gain a better understanding of the term screen resolution look in your windows help system…
In Windows do this :

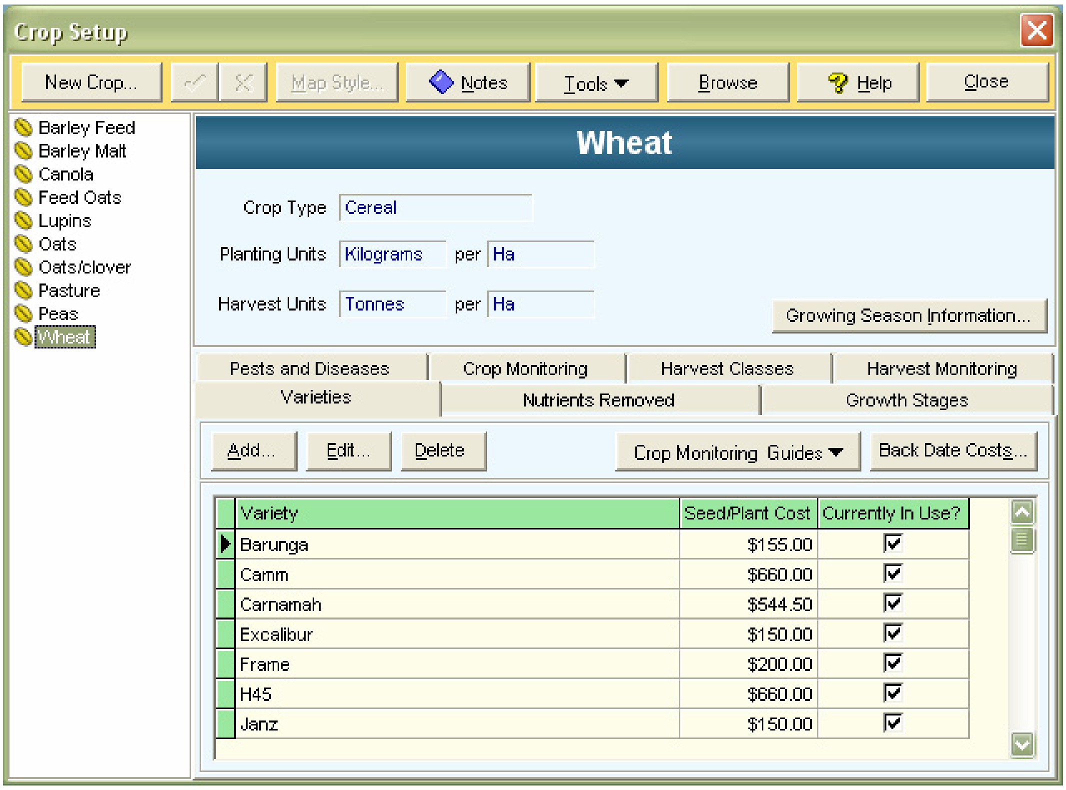
- Click on the **Start** button
- Select *Help* from the menu
- Click on the *Index* tab and type in… resolution and then click *Display*. Follow the help instruction from there.

You can also get to the screen settings by right clicking your mouse on your Windows "Desktop" area… then select *Properties* from the little pop-up menu.

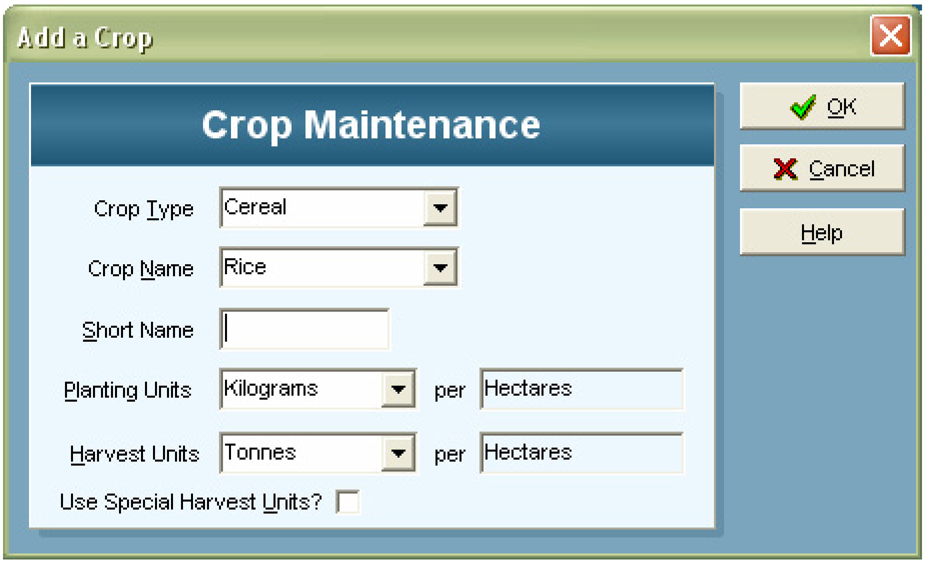
The higher the resolution the greater the number of pixels you will display on your screen.

Setting up your list of Crops and Varieties

Select *Configuration / Crop Types & Associated Lists & Settings*

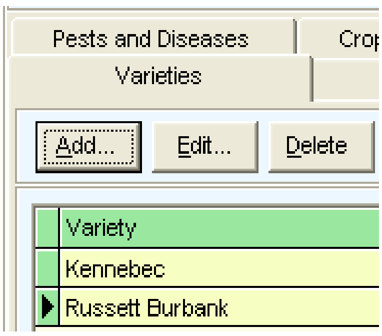


Click on the **New Crop** button and add your first crop.
Select a Crop Type: Eg. Cereal, Vegetable, Fruit
Select a Crop Name: Eg. Wheat, Carrots, Pears
Enter a Short Name: the short names are used in some reports.
Enter the planting units: Eg. Kilograms, Plants, 1000 Seeds
Enter the harvest units: Eg. Tonnes, Kilograms

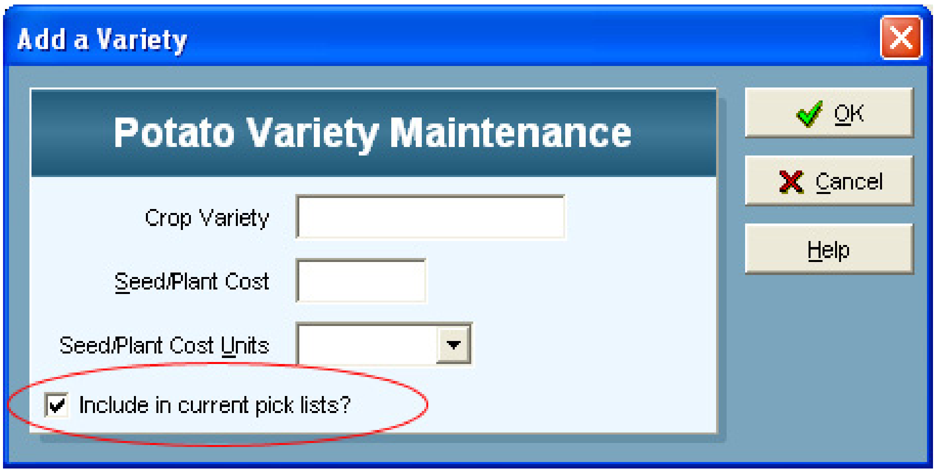


Special Harvest Units: These can be "bins", "baskets" etc. You would only use this option if you use that type of harvest unit at harvest time. Even if you do use this type of harvest unit, you must set it up and define it in terms of the harvest unit you selected on this screen (eg. Tonnes or Kilograms) If you intend to use Special Harvest Units, you need to set up special harvest units under *Configuration / Units of Measure and Package Sizes*

Varieties



For each crop you should add the varieties. Click **Add** on the Varieties Tab.



Enter the Crop Variety: In some cases you will find a list of varieties has been provided so you can pick a name from the list. Eg. there are many Wheat varieties provided. However, even if **PAM** is giving you a pick list to select a variety name, you can still type a name into the space provided (if the name you are entering is not included in the list).

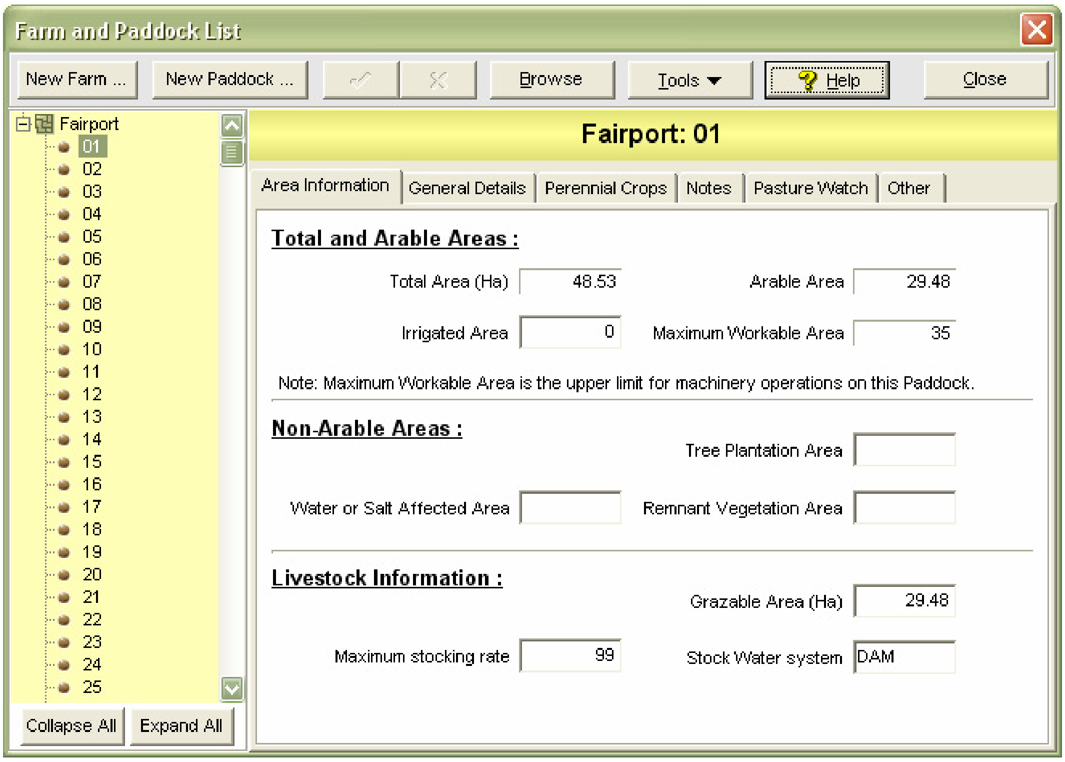
Some crops are planted by seed, some are planted with seedlings or plants. Enter the cost per unit as appropriate.
Then select the unit you are using for this particular crop type. Eg. Kilograms, Plants, 1000 Seeds etc.

Notice the "**Include in current pick lists?**" option: After some time you may find that some of the items (varieties, fertilizers, chemicals etc.) that you set up at the start become redundant and you no longer use them. You will see this option in many places throughout the configuration area of **PAM**. To hide items from your data entry pick lists, simply "un-tick" these options.

Click **OK** to leave this Variety maintenance dialog. Continue to add your varieties for each crop as required.

For now we are concentrating on setting up the "bare essentials" so we'll leave the rest of the setting up of this section (Crops and Varieties) until later in this chapter.

Setting up your Farms and Paddocks list



Would you prefer to call your production units something other than Paddocks? You can! Visit the *Customise your PAM program …* menu (at the very bottom of the Configuration menu) to look at this and other options.

Select *Farms and Paddocks List* from the *Configuration* menu to go to the data entry screen.
Use the **New Farm** and **New Paddock** buttons to commence adding to your Farms and Paddocks lists respectively.

Steps to add Paddocks

1 After clicking **New Paddock...** select the property name from the pick-list.
2 Move on to the Paddock name field and type in its name...
Please note the length of Paddock names is restricted to 20 characters.

3 Enter the total and arable (or planted) Paddock area then click **OK**.

You may then add the rest of the Paddock information on the various tabs on the Paddock screen.

Paddock Sort Order

Please note :
Wherever you see your Paddock's list throughout PAM it is sorted alphabetically. If this order is inappropriate, you should prefix the names to enforce your preferred order.

If you want Paddocks to appear on your lists in a certain order, you must devise a method to force **PAM** to sort in your preferred order.
Eg.
A - House Paddock
B – Front Paddock
C - Back Paddock

If you use a number system for your Paddocks, you must use numbers as follows :
01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11 etc ...

or if prefixing names with numbers
01 - House, 02 - Front, 03 - Back etc ...

otherwise you'll find the Paddock list will sort like this
1, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 2, 20, 21, 22 etc
^ ^
To sort the entire Paddock listing so that the Paddocks of your preferred Farm is at the top of the list, you will need to prefix your Farm names with letters or numbers as well.

Paddock fields explained

Areas Information :

Total area... the whole paddock including areas which are not planted (if any).
Arable area... the area of the total that can be cropped. This area is used by the Paddock Activities Diary as its default area.
Maximum Workable area... The maximum area that the Paddock Activities Diary will accept.
Tree Plantation area... area of tree plantations in a Paddock
Remnant Vegetation area... area of uncleared land (bush)
Water or Salt Effected area...

These areas are totaled in the Paddock Areas report.

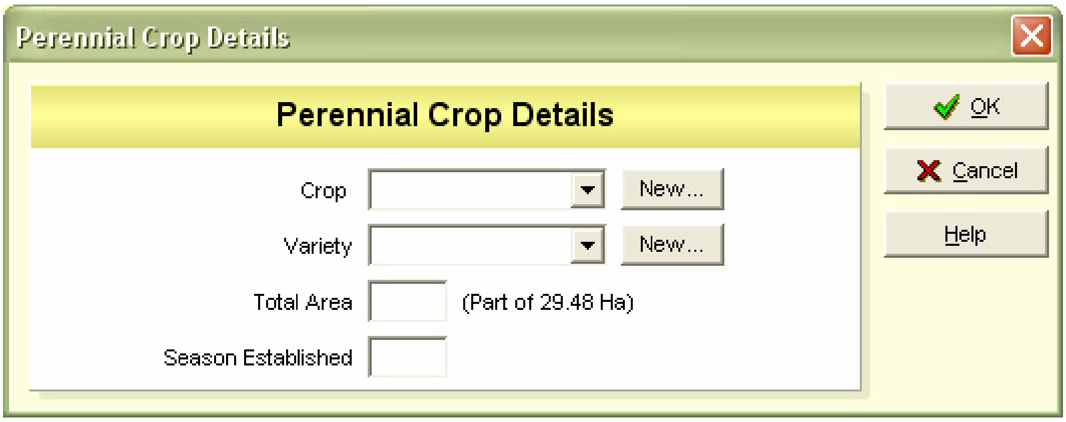
General Details Tab

Paddock Number : Optional identifier – used only by the Fairport comparative analysis software ("CADataExport") to ensure anonymity of data when data is merged for comparative analysis.
Value : This is an optional field. If you choose to use it you can generate the Paddock Values report.
Date established and Date retired : These dates are used to help **PAM** generate better map-based reports. As Paddocks become non-current they are removed from Paddock pick-lists but historical reports and maps still need to know when the Paddock was either established or retired or both.
Current ? : If a Paddock is re-arranged in some way, you can make a Paddock non-current by checking this field. It will then be left off the Paddock pick-list.
Use this in conjunction with the Established and Retired Dates.
Rainfall station - this field is required if you want to generate water use efficiency reports in **PAM**.
Location - this field is to store your property location numbers (section, portion, lot numbers), however it can be used for whatever purpose you wish. This is an optional field. If you choose to use it you can generate the Paddock Locations report.

Soil information - these fields enable you to keep a record of top soil and at-depth soil data.

Perennial Crop Layout Details

This tab sheet enables tree and vine crop growers to keep a record of the layout of their production units. This is also the place to record perennial crops like Lucerne.
The information on this tab is vital to the automation of the Paddock Activities Diary system.
The layout of the Perennial Crop Details dialog differs in **PAM** Ultracrop. **PAM** Ultracrop has fields for row spacing and plant spacing… It also calculates the number of plants (trees, vines etc) in the paddock or block.



Modifying an existing Paddock record

To edit the Paddock name choose the *Tools/Paddock/Rename* option.

To access the **Tools** menu either click you right mouse button on the outline on the left of the screen or click on the **Tools** button.

Move current Paddock to another Farm

This option (under **Tools**) allows you to move Paddocks into different Farms. This may help when using the mapping module in

conjunction with **PAM** or for those of you who have used earlier versions of **PAM** which had certain restrictions and idiosyncrasies.

Deleting a Farm or a Paddock

These options (under **Tools**) allow you to remove Paddocks and Farms. You will be warned that deleting a Farm or a Paddock will remove all records relating to the item being deleted. Only do this if you are sure that it needs to be done.
If you want to exclude a Paddock from the pick-lists you can use the "Current" field... a non-current Paddock won't be seen on your data entry and report pick-lists.

To edit other information on the Farm and Paddocks screen, simply click on the information and change it as required.

Please Note: The paddock arable areas are used as the default area of the cropped area within the paddock during any data entry session … for example, when entering spray records.

If you change the arable area in the Paddock setup screen after records have been entered, you will be asked if you want to update the area treated in all past records.

Entering Paddock Notes

If there are special items of importance which you need to keep in **PAM** but for which we haven't provided a field, enter them into the notes box. There is a notes box attached to each Paddock in the Paddock file. See section earlier in Chapter 2 entitled *Tips and advice - data entry* for full details of keys to be used within the notes window.
To access notes for a Paddock, click on the *Notes* tab... to enter notes click on the **Add/Edit Notes** button.
The notes displayed on the tab sheet are view only!

For help on how to use the notes boxes See “Notes and Memo Edit” in on-line help.

Customise your PAM software

Getting data into **PAM** is done through the Paddock Activities Diary or the Paddock-Season view. We have anticipated that there will be many people with many different requirements and expectations from the **PAM** program. As a result you can customise the program to suit your needs.

Settings 1

User Defined Production Unit Names

PAM enables you to use a name other than “Paddock” to describe your production unit.
If you refer to your production unit as a patch or a field then simply type in “patch” or “field” into the space provided on the Settings (1) tab. The next time you start **PAM** you will notice that all your menu options, report titles, screen labels and captions that formerly appeared as “Paddock” will be replaced by the words of your choice. You can also change the name of Farm to the word of your choice, you may wish to use “property” or “station” instead of the word “Farm”.

Comparative Analysis Codes (CA Codes)

The comparative analysis code is designed to be used in conjunction with the MultiClient version of **PAM**.
MultiClient users can download from the Fairport website a special add-on program that enables them to create data “Super-Sets”… combining two or more of their client’s data sets into a merged data set for comparative analysis purposes.

One of the problems with creating a data “Super-Set” is that every grower can set up lists using different names for inputs and produce. The comparative analysis code is designed to overcome these differences.

Typically a consultant will publish a list of CA Codes to be used by his consulting group members.
When a consultant calls for his group members to send him their back up disks to create a data “Super-Set”, the merge program will use the CA Codes to accurately compile the merged data.

Settings 2

As you will see on this screen, you have a chance to switch on or off many sections and facilities in **PAM** AusVit. Any option you switch off can be switched on again later (and vice versa).

Cropping

Season Start Month

Set a month for the start of your season period… this will assist **PAM** (and you) in getting the right season for an activity date. Don’t be too concerned about this however, as the setting can be over-ridden when you enter data in the Paddock Activities Diary. It is only designed to be an aid to speed up entries.
If in doubt, set your season (or season) start month to July. If you carry out events prior to July that should be affiliated with the season to come rather than the season just finished, simply adjust the season at data entry time appropriately.

Season or “Season”

While on the subject of the cropping season…
PAM uses a year number (eg. 2005) as the “code” for a season or season. Typically people set the season or season to start in July.

Units Of Measure

PAM enables you to define units like “200 metre rolls” if you would prefer to consume items in units other than those provided by the program.
The units built-in include:

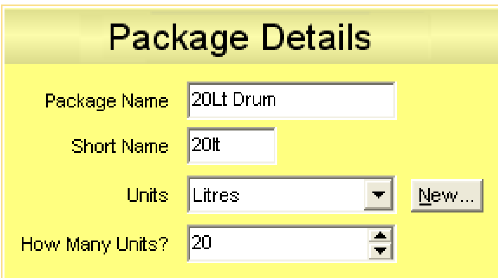
Millilitres, Litres, Kilolitres, Megalitres, Grams, Kilograms, Tonnes, Hectares, Metres, Each, Plants, Head, Sq. Metres.
To add your user defined units to this list… choose
Configuration/Customise your PAM Program/Units of Measure
The simply click **Add** and enter the details.
PAM needs to know the type of unit (area, mass etc) and its equivalent.
Eg. “200 metre rolls” will be a “Distance” type and will be 200 Metres.

Pack Sizes

When using the inventory system, **PAM** makes thing easier for you by allowing purchases to be entered in “Pack Sizes” rather than in units. Confused?… to explain…
Let’s say you use a chemical called XYZ. It’s purchase units are Litres and its application units are also Litres.
When you purchase XYZ you usually buy it in 20 Litre cans (so you set up a Pack Size called “20 Litre can”)… but sometimes you buy it in 200 litre drums (so you set up a Pack Size called 200 Litre Drum).
When entering the purchases in the inventory, you simply pick the Pack Size, **PAM** will give you a default cost (based on your last cost price) and derive for you the cost per litre. If you have to, you simply type in the true cost of the Pack Size and **PAM** will do the rest.

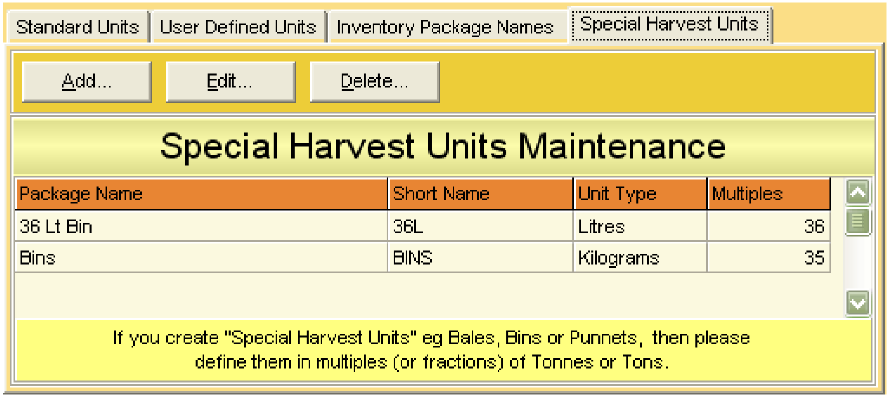
To set up your list of Packages in Use… choose
Configuration/Units of Measure and Package Sizes
The simply click *Add* and enter the details.

1. You enter a name for the package… “20 Litre can”
2. You then select the units… “Litres”
3. And finally the number of those units… “20”

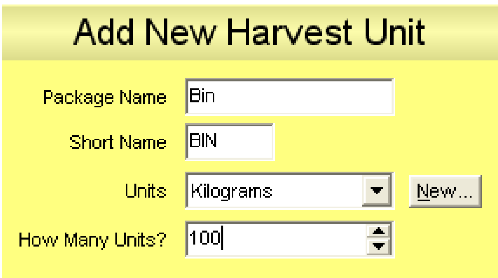


You can add/edit and delete these packages any time you like. They have no bearing on the data stored in any other table in **PAM**, they are used simply to help you calculate the unit costs of things.

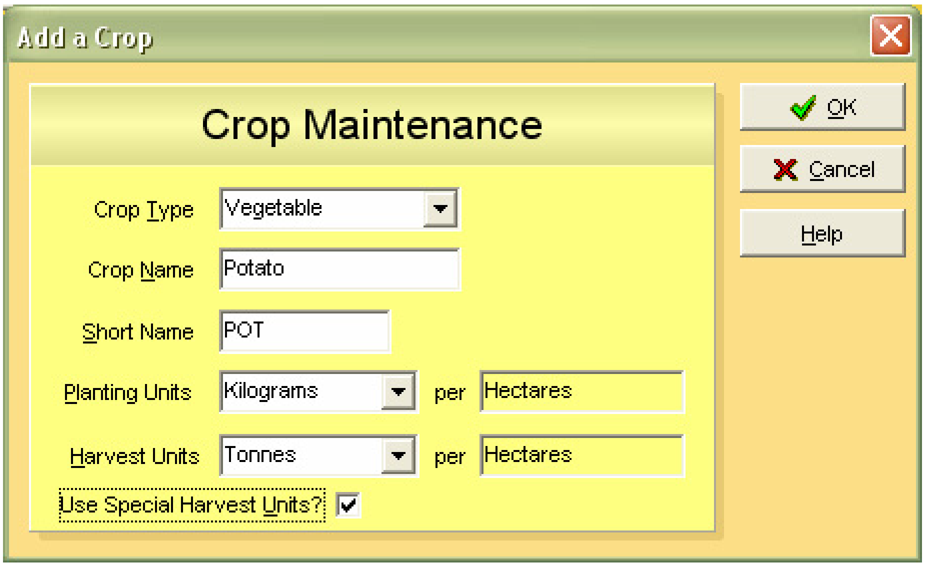
Special Harvest Units



A special harvest unit enables you to enter harvest data in terms of "bins" or "boxes" rather than in kilograms or tonnes. A special harvest unit must be defined as a number of regular units. For example a "Bin" must be described as a container holding 100 Kilograms.



When setting up crop types that can be harvested into Bins, you must check the box shown here ..



Configuration : General information

The pick-lists that you set up in the program configuration section are used throughout the program for data entry. **PAM** also allows you to add to these lists at the time of data entry. We call this "updating pick-lists on the fly".

For some tips on data entry in these screens, please refer to "Data entry screen menus" and "Data entry - Tips and advice", Chapter 2.

You will notice that there is a **Tools** button on the menu in most of the screens in this section of the program. Click **Tools** to display a sub-menu. Typical options under **Tools** menus are...

Delete :

- **to delete an item from your lists... This is not advisable if you have already used an item in your activity diary entries. If you choose to delete an item PAM will remove all cases of the item from your production records.**
- **PAM has an option on most setup screens which gives you the option of including or excluding items from current pick-lists. Always use this in preference to deleting an item.**

Edit :

- **to edit an item's name. This can be done at any time and will be useful to correct spelling errors.**

Backdate Costs :

- **to backdate the costs (or income in the case of harvest) in the records you have already entered to smooth out fluctuations is costs (or income) over a season or to simply record the correct costs (where a guess was used at data entry time).**

Costs

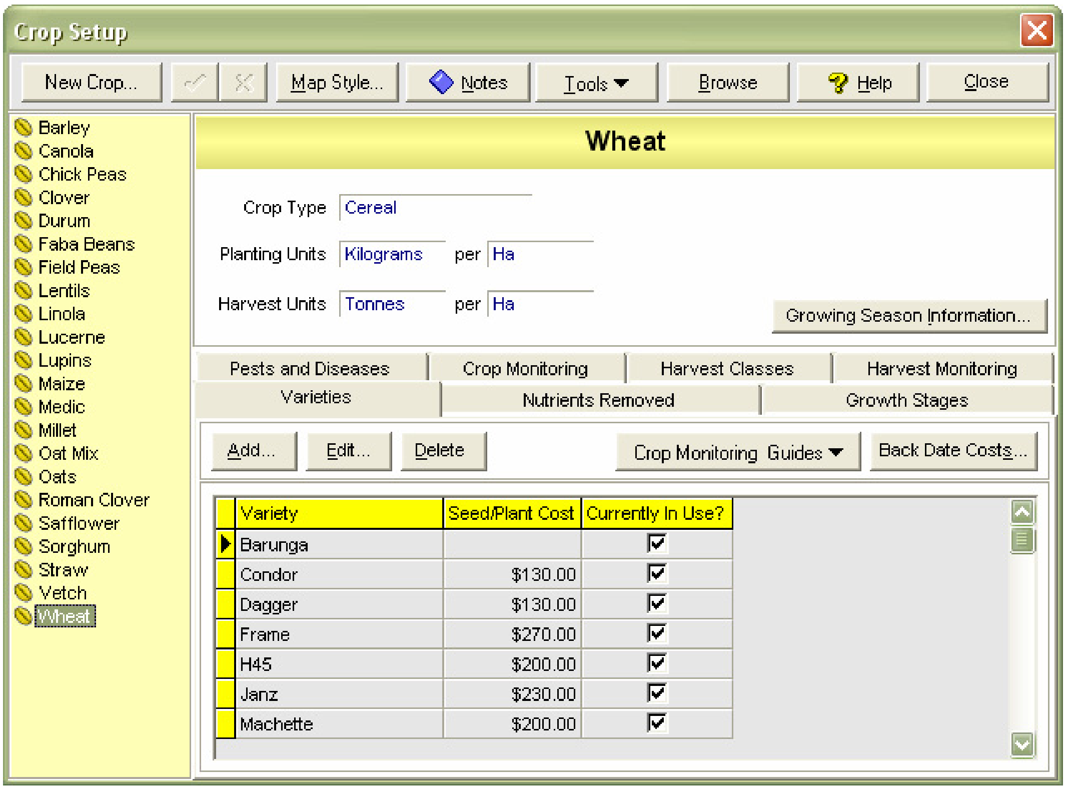
PAM uses your costs entered into these lists to calculate the costs per hectare of your farming operations.

PAM has an inventory system which enables you record purchases of inputs. As the use of inventory system is not required for **PAM** to operate, it's your choice. One of the benefits of using the inventory system is that you can enter purchases of consumables and record the purchase price. Those prices can be used to cost your production inputs. If you want to use an average cost for your input costs you can use the backdate costs facilities and opt to use an average inventory price.
The purchase costs per unit of these items will obviously change from time to time… Using **PAM**'s backdating costs system will smooth out these price fluctuations for you… if you want that to happen!

Please note:
The prices entered in the lists are not intended to be permanent. You will probably need to return to the lists each Season to alter them.

However, if you choose not to enter the prices in the list, that will not matter. The prices can still be entered into the Paddock Activities Diary or Paddock-Season screen later.

Crop Types and Associated Lists and Settings



PAM is designed to handle virtually any crop you might want to grow! As a consequence a lot of thought has been put into the design and layout of the screen where all crop related lists are set up.

I guess at the outset the only thing that may interest you is "…What is absolutely necessary to get started?…"
As you can add to and enhance your lists and settings on-the-fly as you enter events into the Paddock Activities Diary, you can get away with just about nothing!… but let's follow the steps of setting up this section of **PAM** from start to end so you can see the scope of the task.

We have entered many items into the **PAM** Master Lists as you are setting up your system, you will find items already available on pick-lists. If you can't find the item you're looking for, simply use the **Add** or **New** buttons to add it in.

Please Note: <u>Harvest Units, Planting Units</u>

To cater for crops of various types we have enabled the setting of units of measure for these items.
Planting Units: For tree or vine type crops you will find that PAM defaults the planting units to plants, otherwise you can select from a list of "mass" type units (Kilograms, Tonnes etc).

The implication of this setting is that your seed or plant costs must use the same unit of measure.

Special harvest units can be created to cater for produce harvested into bins, boxes etc.
See Page 42.
Set up the list of crop types that you grow… As mentioned above, you'll find that we have included a comprehensive list of crop types for many crops in the **PAM** Master Lists.

To set up a new crop type, click **New Crop…** click on the **Help** button to display on-line help for the steps to adding the new crop name.

Setting up crops… continued:

1. Set up the varieties of those crops… again many varieties are available from the **PAM** Master Lists.
2. Set up a list of growth stages for each crop type.
3. Set up a list of common pests and diseases for each crop type.
4. Set up a list of crop monitoring items (eg. Plant densities, pod counts, fruit counts, head counts, flowering date) for each crop type (these will not include weed densities or pests and diseases as we cater for those already).
5. Set up a list of harvest monitoring items… this list will most likely include things like: % protein, % moisture, % damaged, % bruised, specific gravity, % oil content… any measurements that are taken at harvest time that are influence by the management practices used in growing the crop.

6. Set up a list of nutrients removed by the crop and the amount removed (in Kg/Tonne). This is used in the formulation of the nutrient audit reports.
7. **Growing Season Information** : click on this button to view the form where you set up the month of harvest (or last effective rainfall) and other settings to enable **PAM** to calculate water use efficiency reports and graphs. Check the on-line help in there for explanations on the various items on that form.

Please Note : <u>Growth Stages, Days from Origin</u>

Growth stages are by default milestones along the growth path of a plant. In the case of perennial crops (especially trees or vines), growth stages will refer to milestones within a season.

Crop Monitoring Warning System

Using information from the crop monitoring tab ("Performed at Growth Stage") and from the Growth Stages tab ("Days from Origin"), **PAM** constructs a warning list of items that need attention within the next 7 days and displays this on your screen at program start-up.

Please Note : <u>Nutrient Removal</u>

PAM enables you to record the nutrients removed from the soil by a crop under the Data Entry section... Soil, Leaf, Water and Nutrient Tests/Nutrient Tests. You can have your harvested produce tested for this information. In the absence of such test results, PAM will look to the data you enter in this section of the program to generate the Nutrient Audit reports.

Crop Varieties : Monitoring Guides

For crop monitoring items that can be and are performed on more than one occasion throughout a crops growing period, you can expect there to be optimum values and perhaps values that must be avoided!
For example, Sap Nitrate levels in certain crops fluctuate through the season. Sap Nitrate readings can be taken at several stages and at each of those stages there may be optimum values.
We have provided the facility here for you to “tell” **PAM** what those optimum high and low values are.
PAM uses those value to produce graph lines that you can compare with your actual readings for the growth stages at which you take your readings.

To get this part of the program to work you must work in this sequence… (Let’s continue with Sap Nitrate testing as our monitoring item in this example)

1 Enter your crop growth stages
2 Enter your crop observation or monitoring items (Sap Nitrate being one of those) and be sure to pick “Can be performed at any growth stage” from the “Performed at Growth Stage” pick-list.
3 On the Varieties tab you will see the **Monitoring Guides** button… click on this to reveal the data entry grid where you enter your high and low values.

Crop Varieties : Leaf Test Guides

Use this section in **PAM** for crop specific leaf test item guides. This information may be valuable to you if you take several leaf tests through a season. Some intensive croppers do this to fine-tune their fertigation systems.

PAM uses these values to produce graph lines for you to compare with your leaf test results.

To get this part of the program to work you must work in this sequence…

1 Set up a list of leaf tests under *Configuration/ Soil, Leaf, Water and Nutrient Tests Setup*
2 Enter your crop growth stages in the crop set up screen.
3 On the Varieties tab you will see the **Leaf Test Guides** button… click on this to reveal the data entry grid where you enter your high and low values for each leaf test item and each growth stage.

Consumables List

General Information

All consumables maintained in these lists have the following common properties :

- ♦ Application Units : Units in which you intend to consume them.
- ♦ Purchase Units : Units in which you by them.
- ♦ They can be included or excluded from the current data entry pick-lists.
- ♦ They can be purchased using the *Data Entry / Inventory of Consumables* system. (The inventory system can also be accessed via the **Tools** button on the consumables tab pages).
- ♦ Their costs can be backdated using the **Tools** button option *Back date costs.*
- ♦ Their back dated costs can be averaged using the average purchase price in the inventory system.

Chemicals List - special considerations

- **PAM** has built-in herbicide resistance monitoring and allows you to select the herbicide resistance group for each herbicide as you enter them. You will *only* gain access to the herbicide resistance fields if you are entering a Herbicide

- When entering spraying data in **PAM**, you can quickly enter tank-mixes of chemicals (and save them for re-use). You are not advised to create "composite chemicals" or tank-mixes in your chemicals list.

For example, *don't* create chemical names like "S/Seed & Oil", or "Roundup/Simazine/Oil".
The program will not be able to separate these "composite" chemicals in reports or in the herbicide resistance reports.
Use a single record in the chemical list for each chemical, wetter, oil etc., then use the tank-mix entry technique in the Paddock Activities Diary.

Chemical types

The Chemical types field is used by **PAM** to generate the Chemical Types report and also to segregate chemical types in the Annual Paddock Summary report... giving you totals of ...

- **Herbicides**
- **Insecticides**
- **Fungicides**
- **Defoliants**
- **Regulators**
- **Wetters**
- **Spraying oils**
- **Adjuvants**
- **Seed dressings**
- **Organics**
- **Attractants**

Fertiliser List – special considerations

Nutrients that can be applied as a liquid

To enter nutrients applied by spraying, you must set these up as fertilisers and indicate that they can be applied as a liquid. You will see the “Can be applied as liquid” check box when you add a new fertiliser or edit an existing one.

Nutrient audit report and nutrient information

In order to use the nutrient audit report and to generate other "nutrient-wise" reports, you will need to enter the **percentages** of N, P, K, S, Cu etc in your fertilizer list and the amounts in **Kg/Tonne** of these elements which are removed by harvesting your crops. The fertilizer nutrient information is available from your fertilizer manufacturer, and the crop nutrient information can be obtained by laboratory testing or through your respective Departments of Agriculture. You can if you want to, add to this list of nutrients and indeed delete some of them.

Special Fertiliser Blends

Some fertiliser manufacturers can supply special prescriptions for a single purpose use. We call these fertiliser "Special Blends". Don't confuse these with fertiliser mixes (mixtures of fertilisers on your fertiliser list… eg. DAP + Superphosphate)
Special Blends can be created in **PAM** while in the process of data entry… look under the Tools button while entering fertiliser data in the Add Data Wizard.
You can choose to either keep a special blend for future use or use it as a once off fertiliser blend. If you choose to save it for future use, it will show up on your fertiliser list in the consumables screen.

Customising your nutrients list

You can keep a watch over the nutrients applied and the nutrients removed from your paddocks via fertiliser applications and cropping.
When entering the nutrient make up of fertilisers or crop nutrient depletion amounts, you will see a button… *Add/Remove Nutrients*
To add more nutrients to your list, simply click on the **Add** button on the "Dual List" form that is used to select the nutrients.

Sundry Consumables List

This list is used to cater for those consumables you use that are not fertilisers or chemicals.

Often the units of measure for these consumables will not be either of type “mass” or type “volume” so you may need to either use the units “each”. If you want to create your own units, use the *Configuration/ Units of Measure and Package Sizes* option.
For more information see on-line help.

If you have the livestock module, you will see the veterinary treatments list and supplementary feeds list tabs.
These lists can be entered here or via the *Configuration / Livestock Activities and Treatments* option.
For more information on these items see the Livestock Chapters.

Machinery List - special considerations

Machines can be set up in the *Machinery/ Manual Tasks/ Staff & Contractors List* under *Configuration.*
In there, as you add new machines you will see that you can tell **PAM** the operation that a machine is to perform… (Chemical Application, Fertiliser Application, Harvesting, Planting/Seeding etc.). You can also set up a machine to perform “Any operation”. Typically tractors will be set up in this way. Take at look at the **Tools** options on this screen. You will see a facility to calculate machinery costs and also the place where new machinery operations can be added.

Please Note : You can use this machinery list as a list of individual machines or you can simply enter operations. In earlier versions of PAM, users were encouraged to use the simple approach rather than create a list of individual machines... The choice is now yours.

If you choose to enter just operations you will most likely have a scenario like this :
Operation : Chemical Application
    Machine : Spraying
Operation : Seeding / Planting

Machine : Planting

PAM can generate machinery operation reports by both operations and machines, so by using the simple approach you will not be able to get reports on the use of an individual machine. This may not concern you… if not perhaps you should keep your list simple and use the operation rather than the machine approach.

See on-line help for the steps when adding data in the machinery list.

Machinery Costs Calculator

You can use the on-line machinery cost calculator to work out the costs of operating tractors and machinery. See the section "Machinery List - special considerations" later this chapter.

Access the cost calculator via the *Tools* button when in the *Machinery/Manual Tasks/Staff & Contractors List* under the *Configuration* menu.
You can also access this calculator from the *Utilities* menu or by pressing the key combination ALT+F3.

On the Machinery tab sheet, when entering or updating the costs, take care not to cause a double charging of costs. You may like to use only the "Machinery" field or only the "Contract" field.

Costing machinery by hour, area, application units or harvest units

Some machinery operations are typically costed by area and others by time and others by harvest units or application units. In **PAM** you can set up your costing method to handle either one or the other or a combination of both.
If you use a Cost Per Hour basis for machinery costing, it's a good idea to enter a default Hectares Per Hour value. This will enable **PAM** to automatically calculate the number of hours worked based on the area worked. For example, if you estimate that a spraying

machine can cover 2 Hectares per hour and while entering the Chemical Application operation in the Paddock Activities Diary you select 3 Hectares, then **PAM** will calculate 1.5 hours for you… of course this value can be altered at data entry time should it be incorrect. If you chose to calculate your operating costs for that machine based on an hourly rate, **PAM** will use the number of hours (1.5) for its maths.

Please note : Although PAM provides costs per hour (and harvest units or application units) to calculate the cost of machinery operations (if that's the way you chose) it stores the costs on a per hectare basis. Obviously if you have a combination of machines that are using a combination of costing methods, things will get messy if some data is stored in costs per hour and some in costs per hectare.

Manual Tasks List

Manual tasks are those that don't involve machinery. Crop observations, chipping (hand weeding in cotton crops), fence repairs, pruning etc.
As these tasks are applied to paddocks and crops, you can enter a default Hectares per Hour. In the Paddock Activities Diary, **PAM** will automatically calculate the hours taken by using the area(s) of the paddocks or crops selected.
Note that like machinery, you can cost manual tasks on a Cost Per Hour, Cost per Harvest Unit and a Cost Per Spray Volume basis.

Staff and Contractors List

A list of both staff and contractors can be maintained here. As you enter machinery operations or manual tasks in the Add Data Wizard in either the Paddock Activities Diary or the Paddock-Season screens you are able to select the people involved in the task, their costs and the time taken. This is optional.

In the process of setting up this list of staff/contractors you can enter a cost per hour. This is used as a default value in the Add Data Wizard and may be overridden as you enter the data if it should vary.
By using this section of **PAM** you will be able to generate the "*Who did what?*" reports and other under the option *Reports/Staff and Labour Reports…*

Notes boxes in lists screens

There are notes boxes in the following list set-up screens… fertilizers, chemicals, crop types and varieties, weeds and crop monitoring items. Use these notes to record any relevant information about the item displayed on the screen. For example, in the chemicals notes boxes some people have recorded recommended rates, safety precautions and application details. The notes entered here can be printed via the *Reports* menu where options allowing you to search these notes for "key words" are also provided.

Setting up the soil, leaf, water and nutrient tests systems

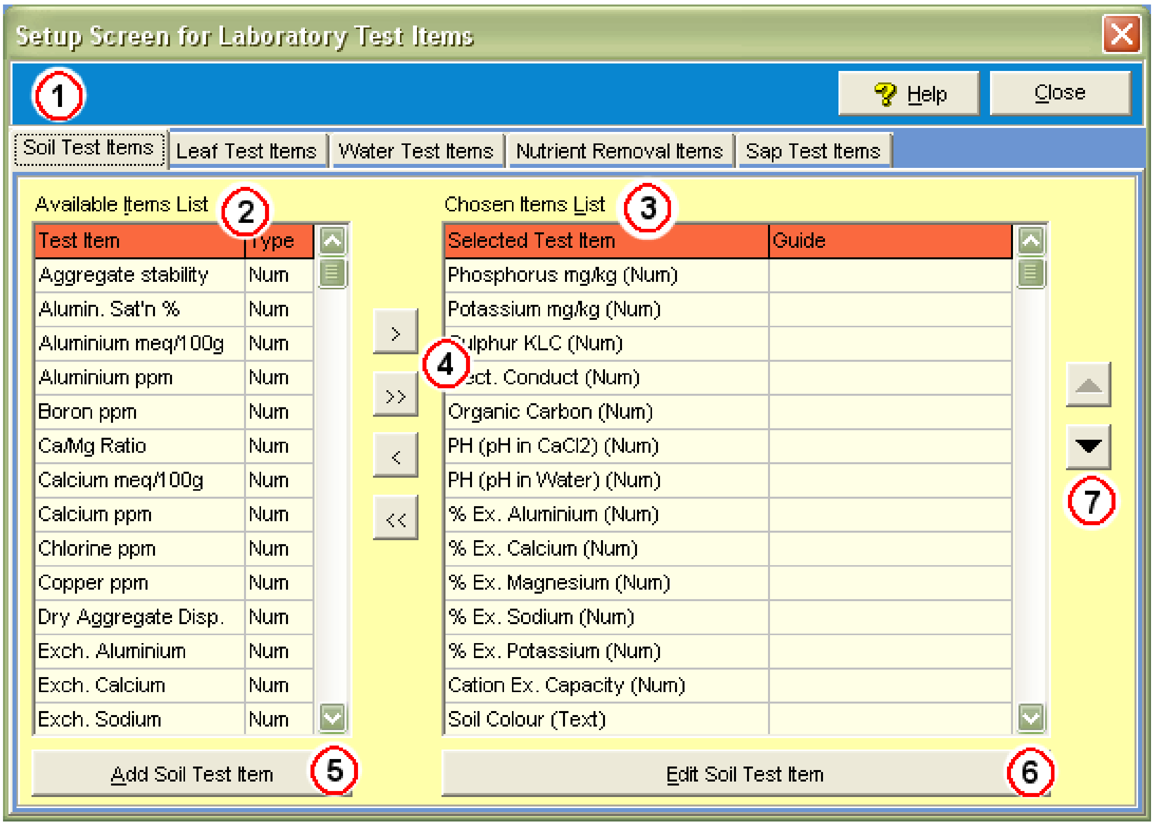
The steps involved in setting up these systems are identical so it is sufficient to use one of the three to describe the method. Let's use the soil tests system as our model.
This system enables you to...

- Select an unlimited number of different test items to form your own soil tests system.
- Set up a specific order in which these test items will appear both on your screen and in your reports.
- Enter guideline levels to keep you on track with your recorded test results.

- Edit or add to the list of tests if you find that one you need is missing from the list provided.

Steps

1. Select *Soil, Leaf or Tissue, Water and Nutrient Tests Setup* from the *Configuration* menu (See (1) in the image above)
2. From the Available Items List (See (2) in the image above), select the required items by either
   - ♦ Double Clicking the item
   - ♦ Selecting it with a single mouse click and then clicking on the **>** button or… (See 4 in the image above)
   - ♦ Highlighting the required item and pressing on your space bar.
3. To change the order in which the items are displayed on your data entry screen, use the Up & Down arrow buttons on the right hand side of the screen. See (7) in the image above.



To add a new item into any of the master lists (that is the Available Items list) … Click **Add**. See (5) in the image above.
To enter a guide (that is a recommended target for a given test item) click on the **Edit** button (See (6) in the image above). You can

then enter a high and low value and also notes about the selected test item.
For example, for Total Nitrogen you might enter 6000 for a Low Guide value and 8000 for a High Guide value. These guides are simply for your own use and reference.
See on-line help for more details on setting up these systems.

Irrigation Pumps and Water Sources List

In this screen you set up your list of water sources used for irrigation. A water source can be any type you may have.
It may be a bore, a lake, a river, a dam, or a scheme water supply… it doesn't matter.
Details like Make, Purchase date, pressure, output per hour are all optional.
If you enter an output per hour value, **PAM** uses this to calculate the total output when you record an irrigation event in the Paddock Activities Diary.
You can attribute a cost per hour or a cost per unit of output to irrigation events. To let **PAM** know which of these calculations to use… select either "per Hour" or "per Unit" from the pick list.
If you enter a operation cost, **PAM** uses that in conjunction with the costing method (ie, Per Hour or per unit of output) to work out costs for you.

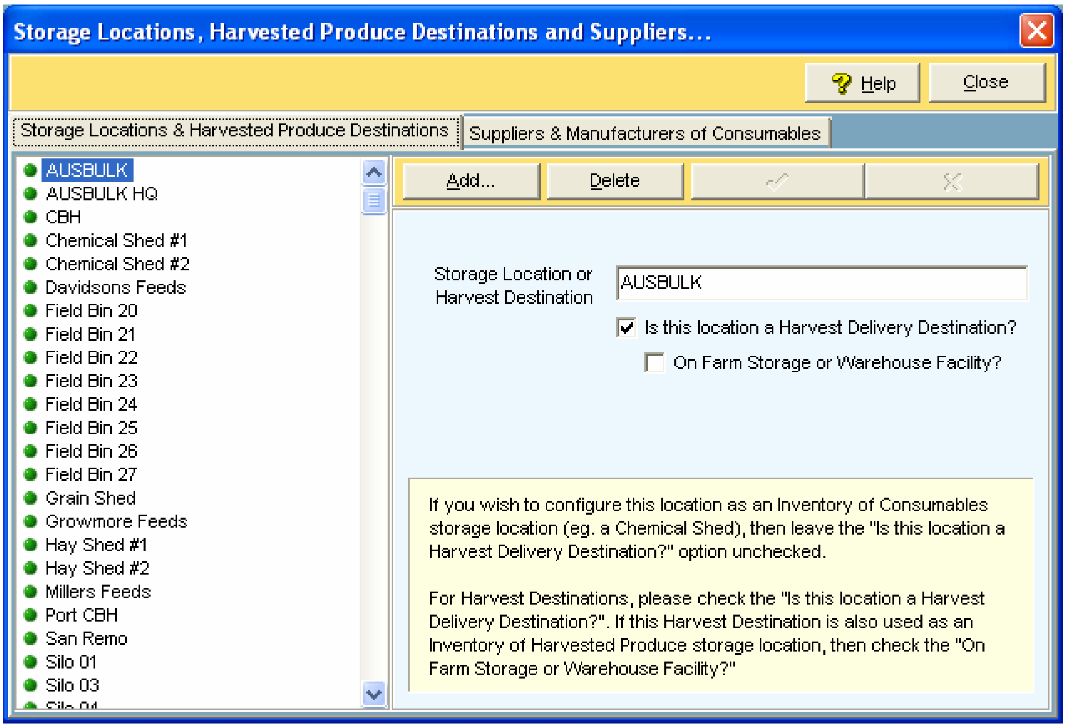
Please Note: the only essential items that PAM needs to work with in the Paddock Activities Dairy are the Name and the Units.

For example, if you know the total output of a water source for an irrigation event **PAM** allows you to enter just that. It will calculate the application rate in mm/Ha.

So, if you only know the total output of water and the total cost of the event, that's fine. **PAM** can cope with that.
You can choose output units of :
Mm/Ha, millilitres, Litres, Kilolitres and Megalitres.

Please Note: PAM generates Water Use Efficiency reports and graphs and it can incorporate the applied water as well as the rainfall into those reports and graphs.

Storage Locations, Harvested Produce Destinations and Suppliers List



These lists are grouped together for your convenience. **PAM** can share locations between your harvest destinations and your inventory locations. Some locations can be both. For example a silo on your farm can be a harvest destination but also an inventory storage location for crop seed.

Harvest delivery destinations are used at harvest time. When you record a harvest delivery you can choose a delivery destination from a pick-list.

Some of your delivery points may be “on-farm” storage or storage centres that you pay a fee to store your produce form late sale.

Set this using the: Is this an “on farm” storage facility? Field when you click **Add** to add a new item or **Edit** to edit an existing item. ..

The suppliers list doubles as a list of manufacturers. Some members of your list of inventory item manufacturers may be both suppliers and manufacturers.

Weeds and Pasture Species List

This list is used in various places:

1 When entering pasture composition and quality records under the *Data Entry* menu.
2 When entering chemical application records… you can select the spray targets for a chemical. If the chemical is a herbicide, you are presented with the list of weeds and pasture species.
3 When entering Crop Weed Densities records in the Paddock Activities Diary.

See on-line help for the steps involved in creating and maintaining this list.

Rainfall Stations List

This list is used in the rainfall system and when you are setting up your list of paddocks.

PAM allows you to keep data for an unlimited number of rainfall stations. Most farms will have at least one rain gauge, some may have many.
You can nominate a rainfall station for each paddock in the *Farms and Paddocks List* screen.
PAM enables you to add a new rainfall station in various places. When you are:

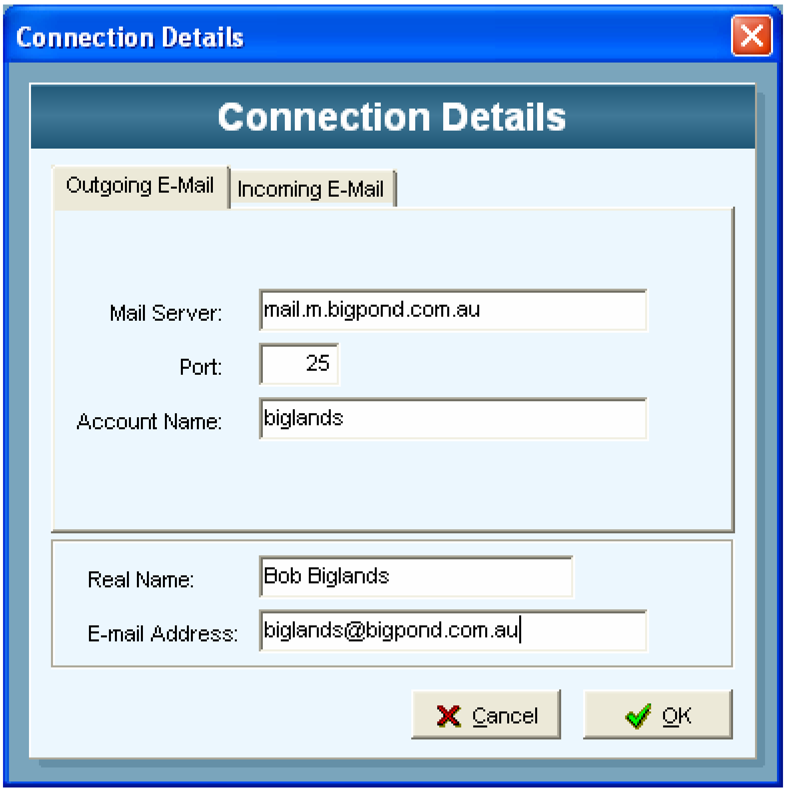
- Entering details for a new paddock,
- Adding a new rainfall year in the rainfall recording system,
- Importing rainfall data from an external source and

• From the *Configuration* menu option *Rainfall Stations.*

Pest Growth Stages

When entering pest monitoring records you can enter the growth stages of your insect pests. This option was added primarily for the cotton industry. If you don't want to use it, switch it off under *Configuration / Customise your PAM program.*

Email Connection Settings



Within **PAM** there are several places where you can email attached reports and backup files directly from the program.
PAM needs to know your email settings.
If you are in need of help for these settings, start by looking into your Account settings within your normal email software. Your dealer or the Fairport Help Desk can also help you with these settings.

Chapter 4

The Add Activities Wizard

Chapter contents

General information

This chapter will give you a brief overview of the main data entry "engines" in **PAM**. The main data entry screens are the Paddock and Livestock Activities Diaries. They are the main "nerve centres" of the paddock (cropping) and the livestock database systems.
In both systems, the daily activities are listed, in summary form, on the screen as they are entered, building up a daily logbook of all your activities. Although the data appears in summary form the full data records are viewable via the edit facility and of course through reports and the "View any Data Table" facility (See *Utilities)*

Please Note :
As you enter and save records in the diary screen, you will see your summarised records are coloured using an alternating colour scheme... one "job" will be coloured one colour, the next job will be coloured another. These colour bands indicate the jobs as they were entered in the wizard.

What is a JOB?

In the Paddock Activities Diary a job could be :
A tank mix of chemicals and the machinery used on 5 areas (crops or paddocks).
In the Livestock Activities Diary a job could be:
Several veterinary treatments in conjunction with the marking of new mobs of offspring from one or mobs of females.

Therefore, a job is defined in **PAM** as the records you enter as a group in one pass through the Add Activity Wizard… where a pass is terminated when you click the **Finish** button!
You will find that you can add as many jobs (passes) in the Wizard in one session as you like.

…An "Add" Session?

A session starts when you click the **Add** button on the main diary screen and ends when you finally click the **Close** button on the Wizard.

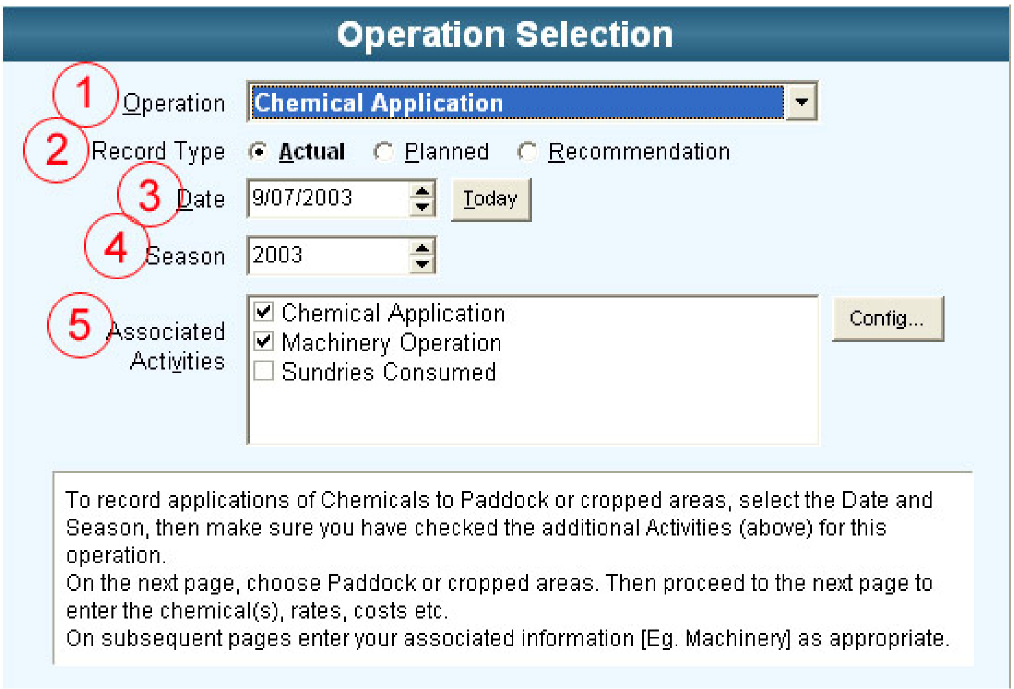
Confused? Believe me… it makes a lot more sense when you're doing it than when you're trying to describe it! You will get familiar with these concepts very quickly.

The "Add Activities Wizard"

Before we launch into the details of adding specific operations (in the next Chapter and in Chapter 10) let's spend a moment looking at the Add Wizard itself…

The wizard consists of wizard pages and buttons. On each page you are required to select options or enter data. You will have access to the wizard buttons at all times, although under some circumstances you will be denied access to some buttons. For example, **PAM** won't let you save your operation entry until you have entered all required data (ie. Data that can't be left out) for a page.

Page One : Selecting the Operation



Page 1 of the wizard is where you

① select the operation you are adding,

② select the record type (See Plans and Recommendations, page 66 later in this Chapter for more information)

③ select the operation date

④ select the Season that this activity will be associated with

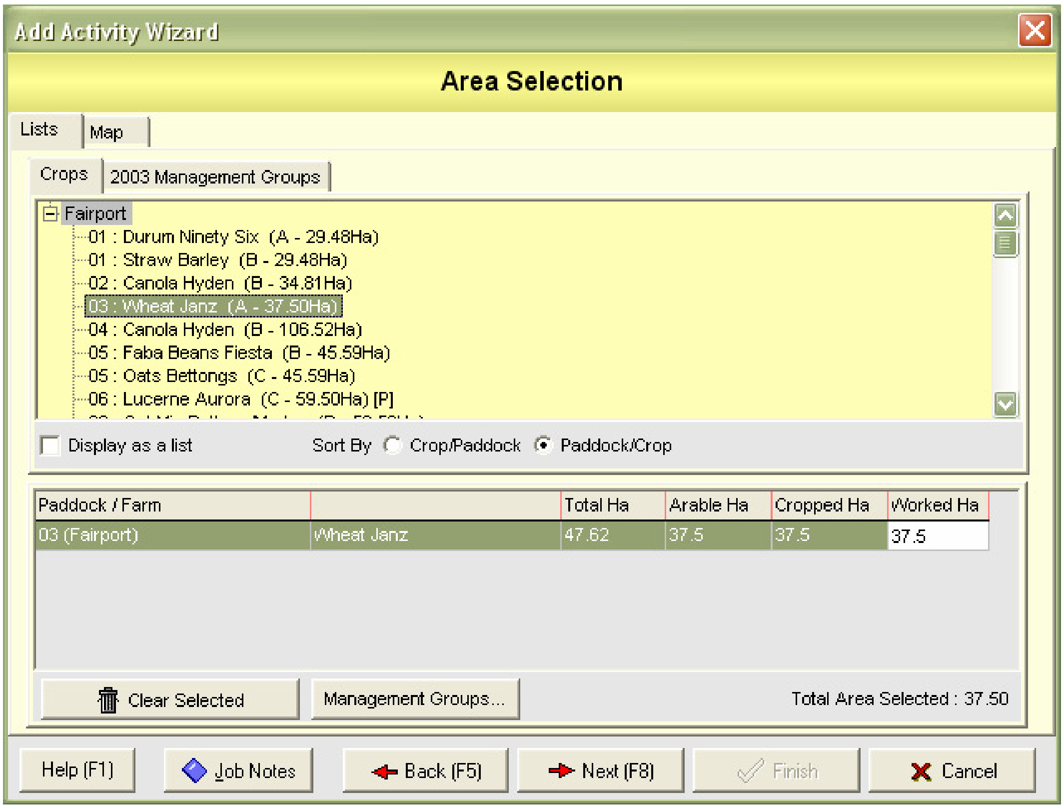
⑤ select the associated operations (if applicable).

Associated operations can be added into any activity. Above you can see that Machinery Operation and Sundries Consumed can be selected. Using the **Config…** button, other activities can also be added into the Chemical Application operation.

These extra (associated) operations simply add extra Wizard pages.

When you have made the required choices on page one, click **Next** to move to the Areas selection page… Page 2.

Page Two : Selecting the Areas



The layout of Page 2 will differ from time to time depending on several things: The type of operation you are entering and the timing of the operation in the season. A more detailed explanation on how to operate the Areas Selection Wizard page can be found in the next chapter where adding a chemical application is described.

When all selections and alterations are done, click **Next** to move on to Page 3 of the Wizard.

Page Three and Beyond

Once you have selected your operation(s) and the areas (or mobs) being “operated on”, you now move on to the operation details pages.

Most of the operation details pages employ data entry grids to enable multiple entries. You will find certain consistencies when using these data entry grids. A grid consists of rows and columns… similar to a spreadsheet. Let's look at some of the consistencies now :

- In each row, a pick-list is used in the leftmost column to select the <u>key</u> information for the record. (A record is represented by a single row in the grid).
- To move from cell to cell (column to column) you can use any of the following methods:
  - Press ENTER (Moves right)
  - Press ← → (Move left or right)
  - Press TAB (Moves Right)
  - Press SHIFT+TAB (Moves left)
  - Click your mouse
- To add a new record (row) simply press your ↓ key or click on the **PLUS** button
- To delete a record while you are still in the process of entering data into it, press your ↑ key or click the **MINUS** button or press the ESC key.
- While entering chemicals, machinery operations, manual tasks, crop monitoring and harvest deliveries you can pop-up data entry dialog boxes for specific details… the chemical targets selection list, the staff/labour selection list and the harvest monitoring items selection list. You will see a small button with three dots on it […] in the relevant cells. To activate the pop-up dialog boxes :
  - Click on these buttons with your mouse or
  - Press <Space bar> or
  - Press ALT+↓
- To pull down a pick-list (including the one in the first column) :
  - Start typing the name of the entry you are selecting
  - Press ALT+↓
  - Click on the small down arrow of the pick-list with your mouse

Finished the operation?

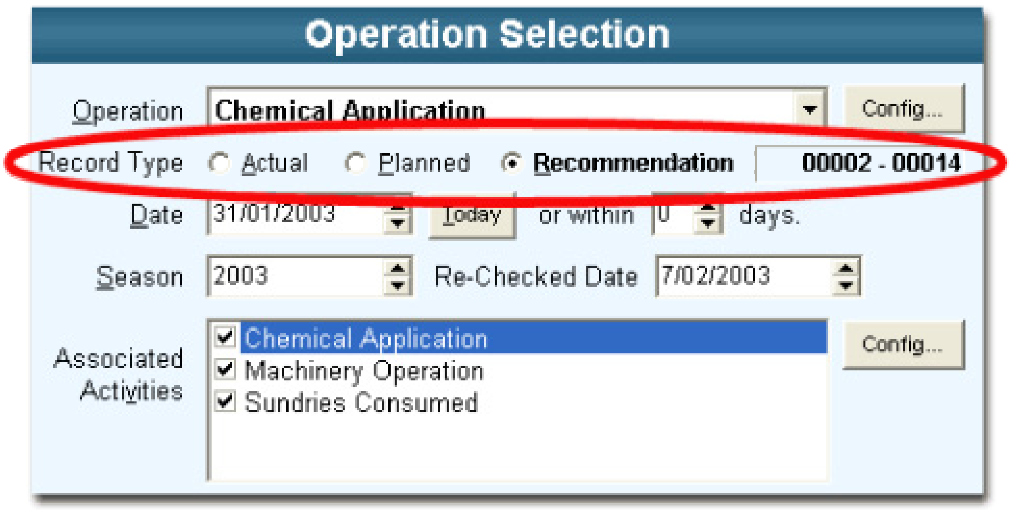
When you have entered all your details for the selected operation(s), click the **Finish** button. Notice that F10 will also save your entry.
If you have accidentally selected associated operations (pages) on Page One, simply save when you have recorded the details you intended to enter and avoid going to the next page(s).

Closing the wizard

You don't have to close the wizard after entering an operation if you have more operations to enter in the current data entry session. You can add data for a many operations, on as many days as you like in the one wizard session.
When you are finally through, click the **Close** button to return to the Activities Diary screen. Pressing ALT+F4 will close the wizard using the keyboard.

Adding Plans and Recommendations

On the first screen of the Add Activity wizard you will see the record type choices as follows:



Actuals: Select “Actual” to record historical data … that is, for activities once they have been completed, both plans and recommendations can be converted to actuals at any time.
Plans: Before you set out for the week’s or day’s work, you can set up the jobs in advance with the plans option in the **PAM** Add Activity Wizard. The data entry steps are the same as for entering an actual record apart from selecting the plan option on the first screen of the Add Activity Wizard.

The plans are displayed in the Paddock Activities Diary in red text for easy identification. At any stage you may convert the plans to actuals by highlighting (clicking) the plan record in the Paddock diary and 

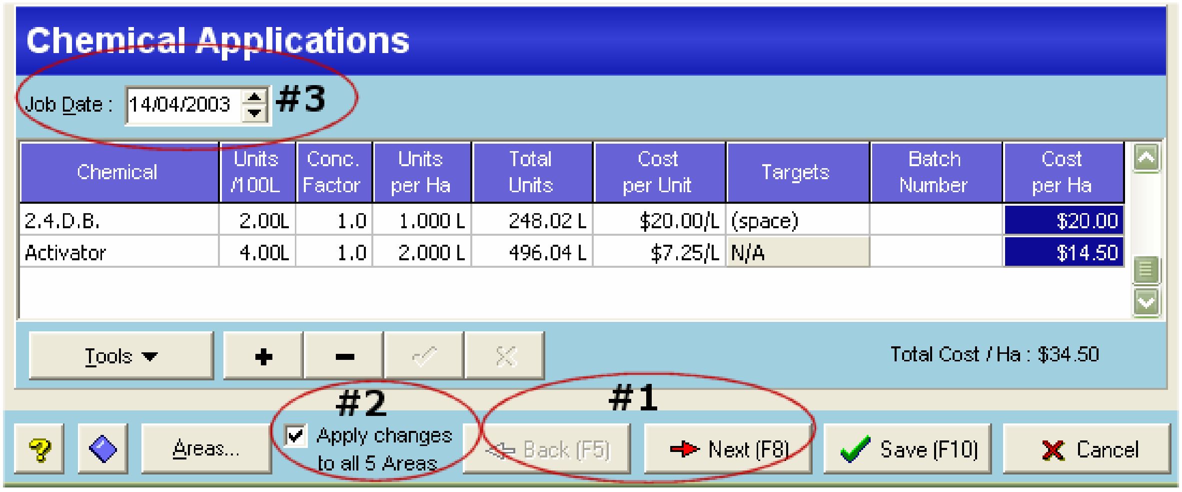
clicking the button,

this will open the edit record screen where you can ‘fine tune’ the details of the records before committing it to an Actual record.

Recommendations (MultiClient Only): These records occupy a separate part of the Paddock Diary screen for easy identification, these records can be entered directly into your copy of **PAM** (in the case of a MultiClient user) or they can be imported within a backup file from a consultant’s MultiClient version of **PAM** . After a record has been added as a recommendation, it can be converted to an Actual or a Plan using the **Convert** button that can be found in the top set of buttons on the Paddock Diary Screen.

Once the recommendation record has been converted to either a Plan or an Actual, the record will appear in the Paddock Activities Diary Screen as an Actual (black text) or a Plan (red text). The record will also remain in the Recommendation partition, but it will have a ✔ in the “Applied” column indicating that the recommendation has been converted to either a Plan or an Actual.

Editing Records



#1 When you choose to edit information in the Paddock Activities Dairy, the whole job (that is all records with the same job number) is re-displayed in the wizard, enabling you to edit any part of the original job.

#2 If you have recorded the same job across more than one paddock (like in the case of the tank mix across 5 paddocks above) you can choose to separate or disconnect the paddocks. Why? – Let's say you recorded the above spray job as if all 5 paddocks received a uniform treatment, but in fact, one of the 5 paddocks had a slightly different tank mix for some reason. To rectify the records, you would highlight (select) the paddock that received the different treatment and click **Edit** or double click on the record.

#3 The job date is displayed on the edit wizard so you can alter it if required.
As this edit wizard is also used to convert planned activities to actuals, budgeted activities to actuals and to apply recommendations to plans or actuals, the ability to alter the record date is essential and therefore is placed on the edit wizard for your convenience.

Advanced use of the edit wizard.

By clicking on the **Areas** button, you can make changes to the paddocks or areas that were originally selected when the original record was made.
This has special significance when you are converting budgets (see a section on Budgets later in this manual) or recommendations to plans or actuals…
Take a recommendation for example. Let's say you have a recommendation that was supplied to you for a particular problem in a particular crop in a particular paddock.
Eg. Rust in the Wheat in the Back Paddock.

You can use this recommendation record and apply it to as many other Wheat paddocks as you want to… on whatever dates you choose.
You could convert (or apply) the recommendation to a Plan, print out the Spray Order for the corrective measures, print out the special "*Map Report for Selected Plan…*" under **Reports**.

(this page is intentionally left blank)

Chapter 5

The Paddock Activities Diary

Chapter contents

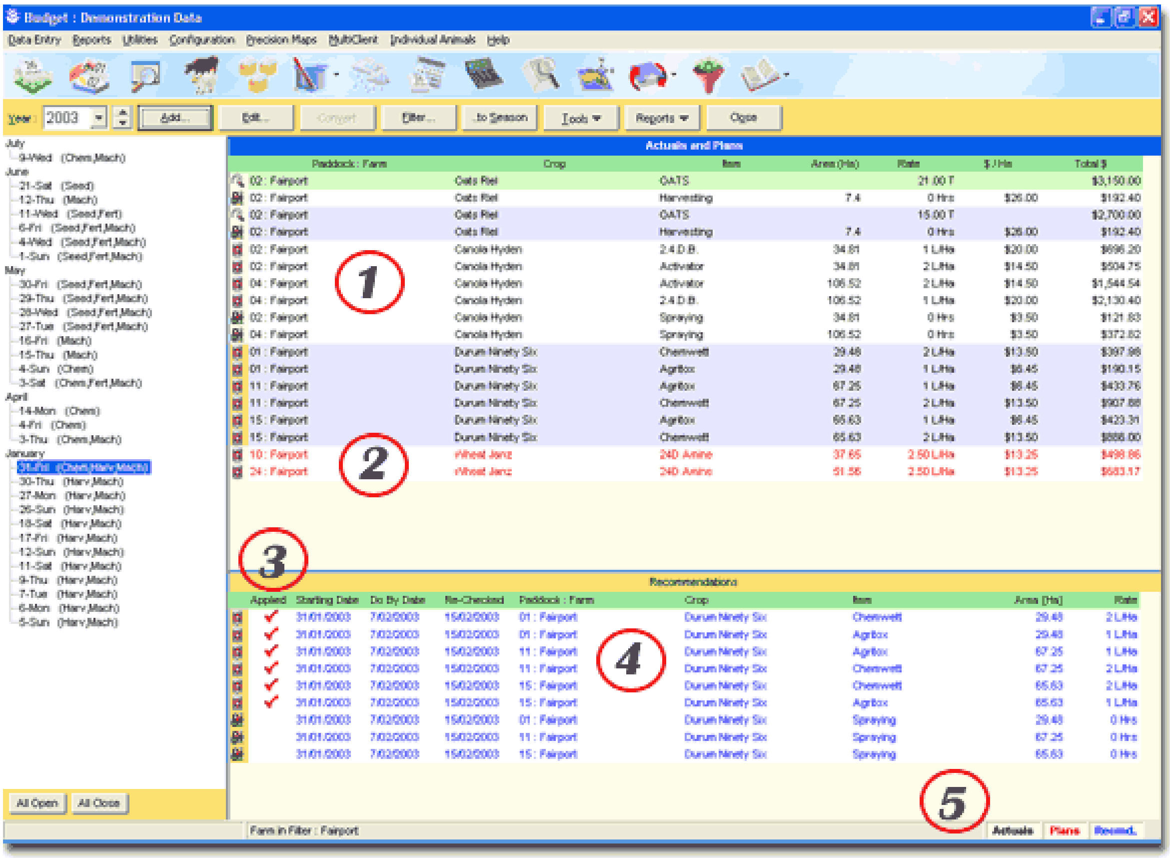
General information

The activities diary is the main "nerve centre" of the paddock database system. This is your main screen for entering cropping and related data. The daily activities are listed on the screen as they are entered, building up a daily logbook of all your paddock activities.

The screen layout

The outline on the left side of the screen shows months (in descending order) of the selected year, which is displayed above the outline. You can skip between years (when you have more than one

year's data) by clicking on the up/down "spinner" buttons or by selecting from the pull-down year list.
You will notice that as you enter data here (using the **Add** button) the dates with data are displayed under their month on the outline. An abbreviation (4 letters) of operations performed is displayed alongside each day to give you an indication of the events for each day.



1 The Paddock Activities Diary Summary Screen

2 Plan records (shown as red text)

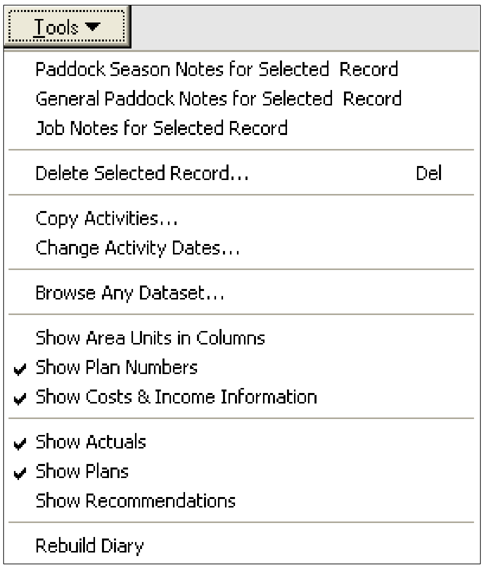
3 The Recommendations records separator bar

4 Recommendation activities (shown as blue text)

5 The Paddock Activities Diary Summary Screen control buttons

The Buttons

Add : To start the Add Activity Wizard to enter operations
Edit : To edit the selected (highlighted) job.
Filter : To control the display of operations… you can opt to hide or display one, all or several operations (You are advised to become familiar with this facility as it will prove very useful).
…to Season : To jump to the Paddock-Season View for the activity you have selected on the main section of the screen.
Tools : To display a list of options for tasks you may need to perform from time to time



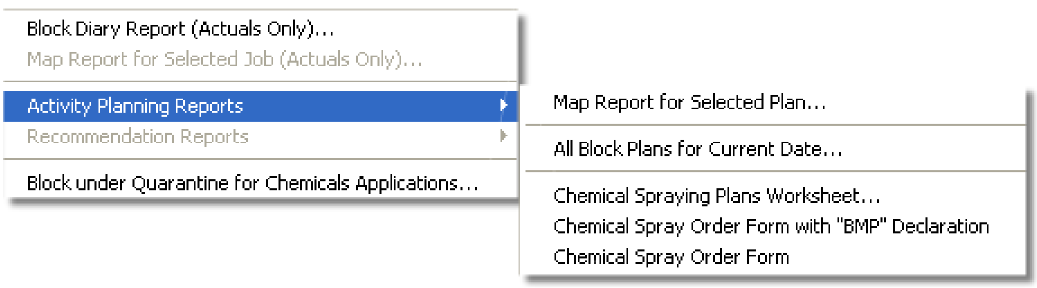
- *Paddock Season Notes for Selected Record* : Add notes to any selected record for the Paddock Season.
- *General Paddock Notes for Selected Record* : Add general paddock notes to any selected record.
- *Job Notes for selected record:* each job can have a note attached to it. These notes appear in the *Paddock Diary Report.*
- *Delete selected record :* To delete the activity record that is highlighted.
- *Copy Activities* : To access the facility that enables you to copy activities listed on the currently selected day to other paddocks on the same or any other day.
- *Change Activities Date :* To access the facility that enables you to change the dates of your recorded activities. This option displays all activities listed for a day enabling you to change one all, or several of the dates in one session.
- *Browse any dataset :* To access the comprehensive list of data tables for browsing. The data is displayed in a table or spreadsheet style view.
- *Show Area Units in Columns :* This option enables you to switch off the units of measure text on the diary screen to free up space on the screen. We recommend that you run **PAM** at the highest screen resolution possible. Some people will not be able to run their computers at more than 640 X 480 resolution, so

the amount of space available to display information will be greatly reduced. If you can't run your computer at 800 X 600 resolution (or better) then please check "Screen settings" in Chapter 3.

- *Show Plan Numbers:* If you use **PAM** to enter plans, it will automatically generate a new and unique plan number for each plan. This plan number will be shown on the planned jobs reports and can be displayed on the right hand side of the diary screen by ticking this option.
- *Show Costs and Income information :* This option shows the $ / Ha for a paddock record and total $ for a selected paddock.
- *Rebuild Diary :* This is a trouble shooting option to be used in the event of a suspected missing record. The program will traverse through all records in all data tables that supply information to the diary screen and rebuild the daily records table.
- *Show Actuals, Plans and Recommendations: (See the Chapter on Plans, Budgets and Recommendations later in this manual)* You can show or hide records of these three types. Generally you would always want to view your actual records. If you use either recommendations or plans, you can choose to hide and show them using these options … or alternatively you can click on the three buttons in the status bar at the bottom the diary screen …

Report : To

generate the report version of the currently displayed day's activities, select *Paddock Diary Reports (Actuals Only).* Please note that the diary filter is taken into account when generating this report… meaning that if you've used the Activity Filter to only display chemical application records, then only chemical application records will be shown on the report as well.



Activity Planning Reports

These include a map report showing the areas selected for planned activities for the day. Of course you will need to have the **PAM** Mapping module installed.
All Paddock Plans for the Current Date
Chemical Spraying Plans
Chemical Spray Order Form

What is a JOB?

A job can consist of : A tank mix of chemicals and the machinery used on 5 areas or paddocks.

A job is defined in **PAM** as the records you enter as a group in one pass through the Add Activity Wizard… where a pass is terminated when you click the **Finish** button!
You will find that you can add as many jobs (passes) in the Wizard in one session as you like.

The activities records (jobs) are listed on the Paddock Activities Diary screen in summarised form. You can see the full detailed view of a record by clicking on the **Edit** button or by double clicking your left mouse on a record.

Please Note :
As you enter and save records in this diary screen, you will see your summarised records are coloured using an alternating colour scheme… one "job" will be coloured one colour, the next job will be coloured another. These colour bands indicate the jobs as they were entered in the wizard.

An "Add" Session?

A session starts when you click the **Add** button on the main diary screen and ends when you finally click the **Close** button on the Wizard.

Confused? Believe me… it makes a lot more sense when you're doing it than when you're trying to describe it! You will get familiar with these concepts very quickly.

The "Add Activities Wizard"

See general information about the Add Wizard in Chapter 4.

Page One : Selecting the Operation

Page 1 of the wizard is where you select the operation, select the operation date and season and choose associated operations (if applicable).
When you have made the required choices on page one, click **Next** to move to the Areas selection page… Page 2.

Page Two : Selecting the Areas

The layout of Page 2 will differ from time to time depending on several things: The type of operation you are entering and the timing of the operation.
You will see one or more area lists… Paddocks, Cropped Areas, Groups, and Map (If you have the mapping module).

Please Note : The only tasks you can perform on this page (Page 2) are 1) Select the areas, (paddocks or cropped areas) that you are working on and… 2) Alter the area worked The Activities details are entered in the next and subsequent pages

When you have established cropped areas within paddocks for a season, the Cropped Areas list will appear! You are encouraged to use this list when entering operations on cropped areas.
For your convenience, you can create Management Groups…(see "Creating Management Groups" later this chapter) these might consist of all areas that have a common variety.
If you are entering operations like : Crop monitoring and harvest, you can only select from your Cropped Areas list.
For most operations you can select multiple areas (paddocks or crops)… or you can select your area groups (Clicking on the parent item of an area group will automatically select the entire group).

Under some circumstances (or operations) you can only select single areas. These include harvest, crop monitoring, weed and pest observation records.
As you select areas, you will see your selections listed in a grid below. Having selected the required area(s), you can enter the *worked* area in the selected areas grid. **PAM** will always enter a default area for you… the arable area of a paddock and the cropped area of a crop. You may be treating a lesser area than the default area that **PAM** supplies for you… simply alter it accordingly.

Making selections on the Areas Selection Page

You can view your lists of Paddocks and/or Cropped Areas as an Outline or a Multi-Select List (see Chapter 2 for details on these concepts). The checkbox labeled “Display as list” will toggle the list type modes.
You can use either your mouse or your <Space Bar> + <Arrow Keys> to select areas. As you select areas they will be displayed in the selected areas grid below.
To de-select an area, do one of the following :

- Click on the area again in the areas selection list
- Double Click on the area in the selected areas grid
- Highlight the area in the selection list with your <Arrow Keys> and press your <Space Bar> .

To de-select all areas, click the **Clear Selected** button.

When all selections and alterations are done, click **Next** to move on to Page 3 of the Wizard.

Page Three and Beyond

Once you have selected your operation(s) and the areas being “operated on”, you now move on to the operation details pages.
For general information on entering data into the Wizard Data Entry Grids, see Chapter 4.

Creating Management Groups

Management groups are made by first selecting areas in the Add Activities Wizard in the normal way (see the techniques above in

the "Page Two" section) and then clicking the **Save as Group**… button.
You then name the group so you can use it in the future.
Management Groups are tied to a Season. Meaning, when you move on to a new Season the management groups for past Seasons are not available. If you ever return to a past Season to enter more data the management groups for that Season will re-appear.

Please Note :
When you select a management group from the list, you can click on the parent item (that is the Group Name) in the outline… that will select all members of the group. If you don't want to select all members simply use the de-select options to de-select an unwanted area or two.

What data can you enter here?

All data relating to the cropping process and the costs associated with those tasks are entered here.
…applying chemicals, applying fertilisers, planting, harvesting, all machinery usage records, manual tasks, sundry consumable consumption, crop monitoring records (weed inspections, pathology, entomology inspections and any crop observation you want) and irrigation records.

Please note :
PAM ***does not mind if you choose not to enter a lot of the details into these records. All fields have been put in this section at the request of growers and are considered worthy of inclusion. You may find some are superfluous to your requirements. Simply SAVE & EXIT from the data entry wizard when you have entered the information, which you require. Press F10 or click on the*** **Finish** ***button to SAVE & EXIT***

To assist you to gather data for this diary system, you can print out the "Paddock Activities Diary" data collection form. To do this, look for *Data collection forms* on the *Reports* menu.

> ***Please Note :***
> ***When you look at the list of operations on the Add Activity Wizard, you may think we have forgotten some important operations. In fact you can set up any operations that are missing by adding to the list of Machinery Operations or the list of Manual Tasks. To enter an operation like "Cultivating", choose Machinery operation then when you get to the details page of the wizard, choose "Cultivating" from the list of operations. If the operation you're recording is missing from the list... add it!***

Before dealing with the specific tasks involved in entering spraying, fertilising, irrigating, crop monitoring, harvest delivery and machinery usage let's first look at the points, which are common to all activities:

Adding a Paddock Activity

1. Click the **Add** button
2. The Add Activity Wizard will appear on your screen.
3. Select the job (eg "Chemical Application") from the operation pick-list. (Note that you have a **Config...** button alongside the operations list. You can filter out unwanted activities from this pick-list via this button).
4. Check the date and edit it if required.

> ***Please note : If your diary is completely empty, the date will default to today's date, after that it will default to the currently displayed diary date.***

5. Check the Season. Correct it if you have to. See "Dates and Seasons" later this Chapter.
6. Many operations have associated activities... for example applying chemicals generally involves machinery usage. If

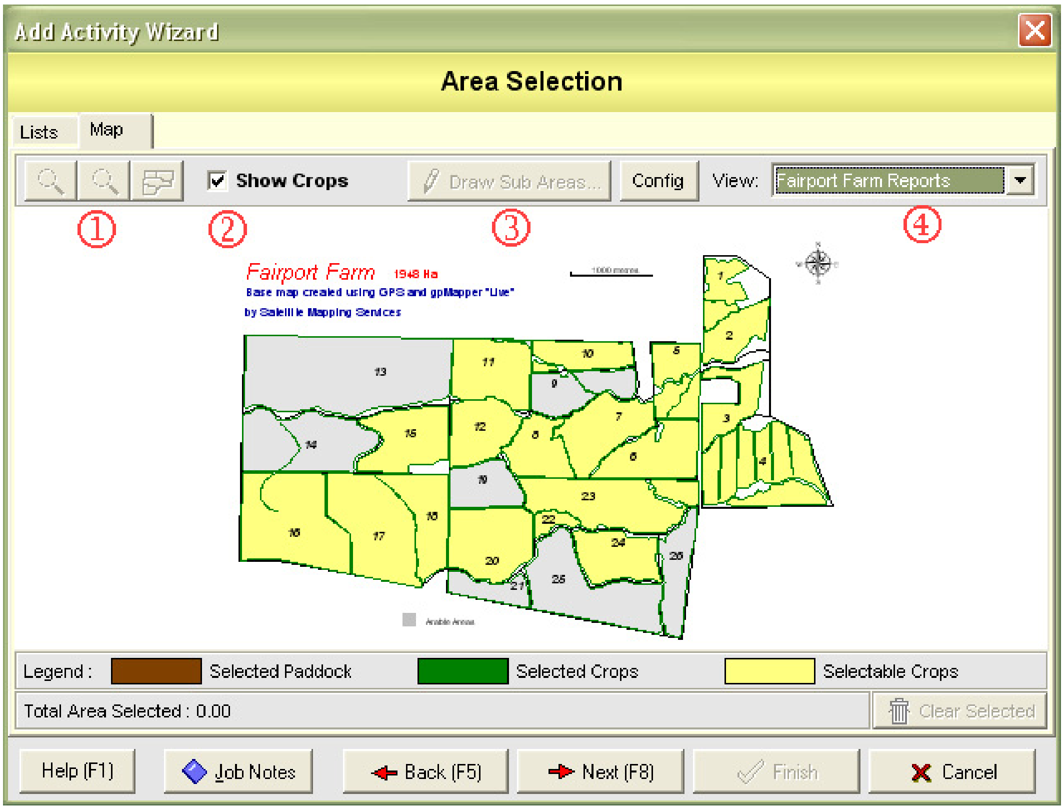
you are entering an operation that involves other operations, use the checklist below the Season field to incorporate associated activities…. Now click the **Next** button

7 On the next Wizard page you select the area or areas where the operation(s) occurred. For most operations you can select more than one area. I use the word "area" because you may be able to select a crop or a Paddock or a group of Paddocks… depending on the operation being entered.

Area Selection Page – Important Options and Special Features

The areas selection page is packed full of options. If you have the **PAM** Mapping module you can use your map to select the areas of a job.

Using a map view for area selection



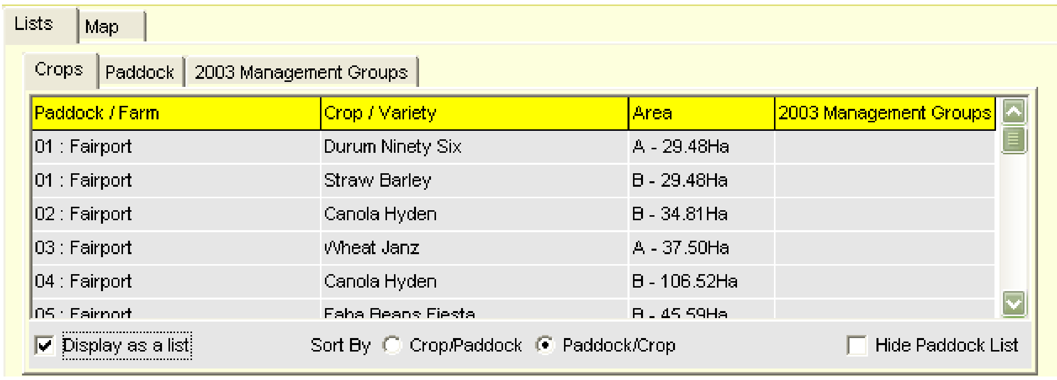
Click on a paddock to select it.

To Zoom in or out use the normal zoom buttons (see ① above)

In **PAM** You are advised to select crops as opposed to the paddocks … so you are advised to leave the "Show Crops" check box ticked (See ② above).
If you ever treat (spray, spread fertiliser, cultivate) less than a complete paddock, you can draw the sub are treated by clicking on the **Draw sub areas** button. See ③ in the image above.

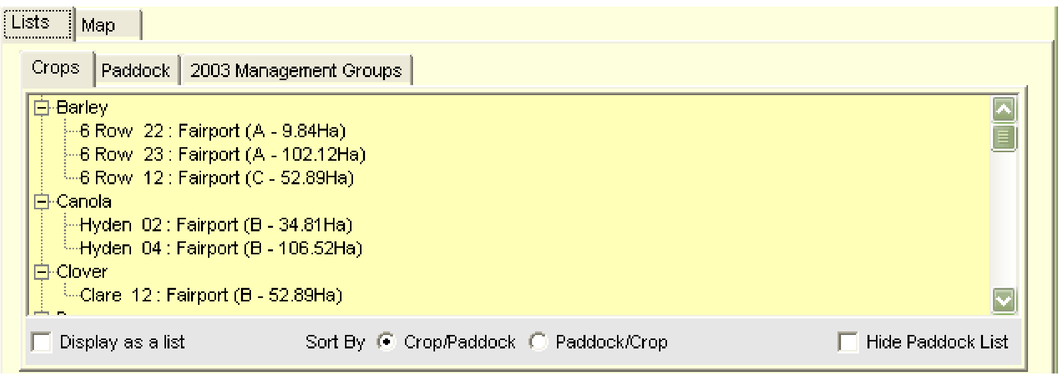
When setting up views in the mapping system, you are advised to create one of the views with data entry in mind. A simple view of the paddock layer and perhaps paddock names would be ideal. See ④ in the image above … this pick list enables you to select a different mapping view for the data entry – area selection window.

Using a pick list of paddocks for area selection

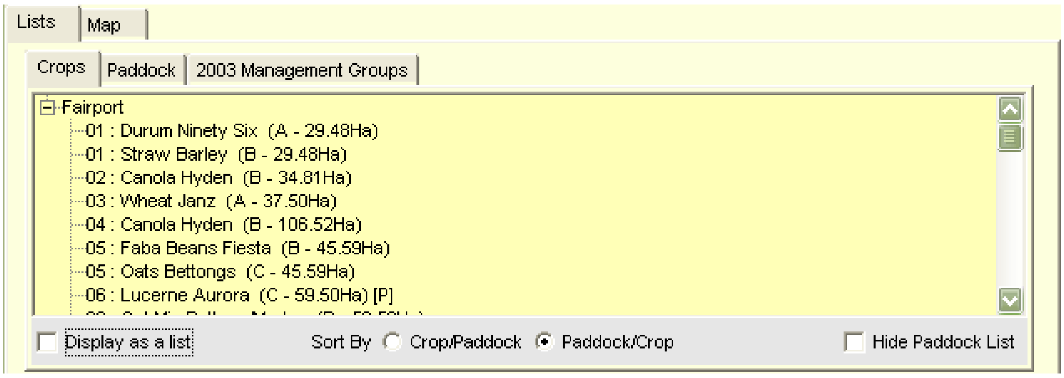


Display as List

This check box sets up your list as shown above. When the option is switched off you will see an outline style list of your paddocks..



With "**Sort by Crop / Paddock**" on all paddocks which have the same crop are grouped together. If you performed an activity on all paddocks with same crop, you need only click on the crop name to choose the lot.

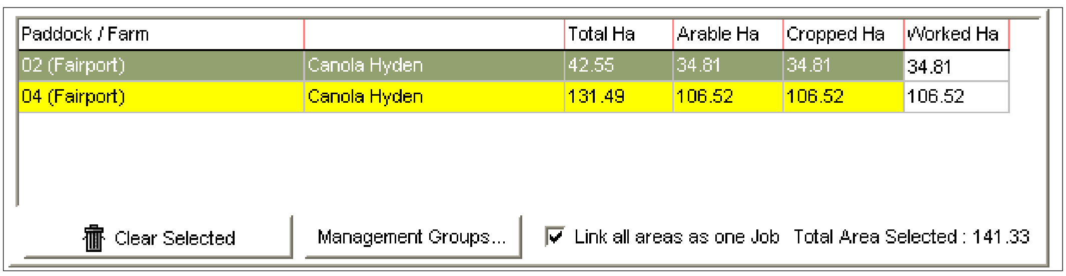


With the "**Sort by Paddock / Crop**" option chosen, you see that the list is grouped by farm … and sorted by paddock names. Using this sort and display option may be the most suitable for your farm, particularly if all paddocks contain a single variety.

If this is your preferred area selection display, you are advised to hide the paddock list. Check the "**Hide Paddock List**" check box to remove the risk of entering data against a paddock as opposed to the crop. Entering all activities against the cropped area as opposed to the paddock ensures all crop-wise reports work as they should.

You would only enter data using the "Paddock" tab if you are planting a new variety in a paddock or if the cost of the activity being recorded is not to be allocated to the crop growing in the paddock area.

8 Before you go on you may need to alter the worked areas… do this in the area selection grid at bottom of the Wizard page…

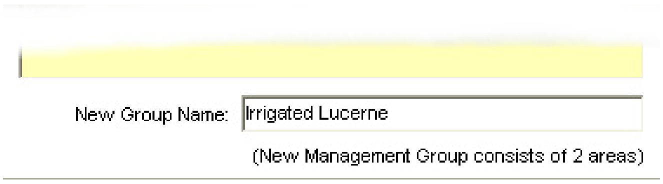


Note also the options along the bottom of this panel…

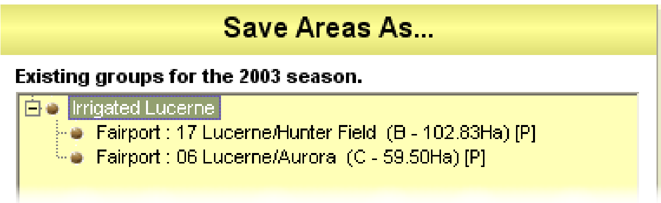
"**Link all areas as one job**" – As you can add records for many paddocks or areas at a time, so too can you edit those "linked" records. All records for each paddock are linked together by a common job number. If you want to keep this link, simply leave the check box ticked. If you will need to edit the records for individual paddocks, un-tick the check box.
When would you need to Un-Tick this check box? When you enter bulk data for many paddocks for speed, but intend to edit one or more of those records because the paddocks received slightly different treatment.

Clear Selected – Deselect all areas

Management Groups – Management groups are used to speed data entry when you have a group of paddocks that are generally treated with uniform management. Clicking on the **Management Groups** button will display a dialog where you name your chosen list of areas.



Having saved a management group, it can be viewed by clicking on the **Management Groups** button in the future…



New management groups are set up each season. They are designed to be a single season data entry aid. It is quite likely that you may not find a need to use them. However, if you use them, you will find a special report has been designed to report on management group activities.

9 Click **Next** … Now you will see the details page for the main operation (if you selected associated operations you will see

their details pages next or subsequently).
Enter all relevant and required data.

If you chose to enter several operations in the one pass, clicking the **Next** button will take you to subsequent data entry pages for the selected operations.
Each operation has its specific details page and specific requirements… see the special cases detailed on the following pages.

Dates and Seasons

In some cases, the date may not line up exactly with the YEAR. The year we're talking about here is the "Paddock-Season" or SEASON. The details entered in this diary find their way to the Paddock-Season screens and Paddock-Season reports. To ensure that the details being entered are displayed in the right place it is important that they be entered correctly.

Seeding or Planting operations : Special cases

Main Crops, Secondary crops

If you ever grow multiple crop types in the one area in a season you may be doing one of several things…

1. You may be growing one crop, harvesting it and then growing another to follow (eg. A Winter crop then a summer crop) or…
2. You may be planting a main crop and "under sowing" it with other crop types. This is a case of a Main Crop and one or more Secondary crops in the one planting.
3. You may be re-planting a failed crop. In this case we are planting a secondary crop… all costs will be entered against the original crop.

Case 1 : How to handle growing two or more crops in the same area in the one season

PAM will allow you to keep adding more than one "main crop" for the same area…

Case 2 : How to handle re-seeding

If you are re-seeding with the same crop type and variety, enter an extra seeding entry - Make sure you don't tick the Main Crop check box. See the on-line help for more details.

Case 3 : How to handle under-sowing

When entering the crop/variety planting details, simply keep adding more crop/varieties after you have added the main crop. Be sure to only nominate the main crop as the Main Crop!! Actually **PAM** won't let you have more than one main crop for a mix or combination of crops entered in the one job.

Perennial Horticultural Crops

For perennial horticultural crops you must be aware of the need to tell **PAM** the crop locations and layouts. This is done in the Paddock setup area… *Configuration / Farms and Paddocks list…* When there check the Perennial Crop Layout Details tab sheet. Use the **Add** button to enter the crops. As in the "real world", any number of crop/variety combinations can co-exist in an area. Remember also that you can refer to your areas (production units) as paddocks, fields, farms, orchards, paddocks or whatever you like. See *Customise your **PAM** QA Plus Program* in Chapter 3.

What if you pull out a tree or vine crop and replant?

Steps to record the "pull out" part of the operation.
You will most likely need to record machinery and other events in the Paddock Activities Dairy but to let **PAM** know that the crop is no longer part of the current layout, do the following in the Farms and Paddocks set up screen.

1. Click on the **Edit** button on the Tree/Vine Crop Layout Details tab sheet.
2. A dialog box will pop up…in the "Year retired" field enter the year that you pull the crop out
3. Check the "**Is this the current crop?**" field "Off".

If you have re-planted the area with another crop, click **Add** and enter the new crop details.

You will no doubt want to record the planting in your Paddock Activities Diary as well.

Non-Horticultural Perennial Crops

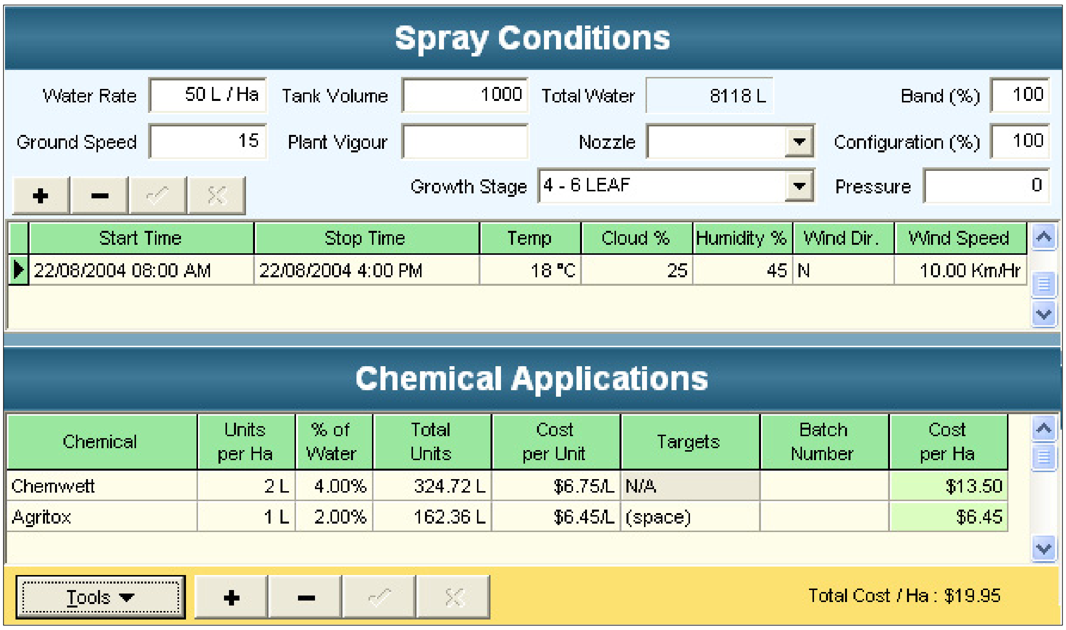
Crops like sugar cane, lucerne, evening primrose and others, fall into the category of non-horticultural perennial crops.
There is no reason why these crops shouldn't be entered in the Perennial Crop Layout tab sheet .
Why?… **PAM** uses the information that you enter into the Perennial Crop list on this tab sheet to prepare itself for each new season. As you enter the first event for a new season, **PAM** checks your list of perennial crops and sets up a cropping record for them… so that you can select these perennial crops from the Cropped Areas pick-list to perform operations on them.
So, the general rule is that any crop that will not need to be re-planted every season should be entered as a perennial crop in this screen. It is a very simple matter to make these records non-current as soon as they do, indeed become non-current!

Applying Chemicals

Your chemicals list is set up under *Configuration / Consumables.*

Steps

Follow steps 1 to 8 (Adding a Paddock Activity above) having selected *Chemical Application* from the Operations Pick-List.
If all went according to plan you will have arrived at the Chemicals details page...



Here you can enter the spraying conditions ①, the chemicals and their rates ②. Note the **Water Rate** field is first on this section of the Wizard page. The Water Rate is used to help calculate the rate of application of chemicals (or wetting agents) when you know the percentage of water ③ used rather than the rate per hectare.
Obviously entering the spraying conditions is optional... fill the start and finish times and the weather details in if you want to.
Use the **Plus** button to add extra rows.
You can enter (via a pick-list) the **Growth stage** of the crop being sprayed and the **Plant vigour**.
Many people ask if the growth stage refers to the target weeds (in the case of a herbicide application) or to the crop. The choice is yours! However, it would be more relevant to be consistent and just refer to the crop's growth stage in all cases.

The **Plant vigour** field is a two-digit field - allowing a range of entries from -9 to 99. You are advised to devise a standard range (perhaps 1-10) for your purposes.
If you don't wish to use either of these two fields you don't have to. You could set up a blank **Growth stage** or perhaps set up one called "N/A" (not applicable) and leave **Plant vigour** as 0.

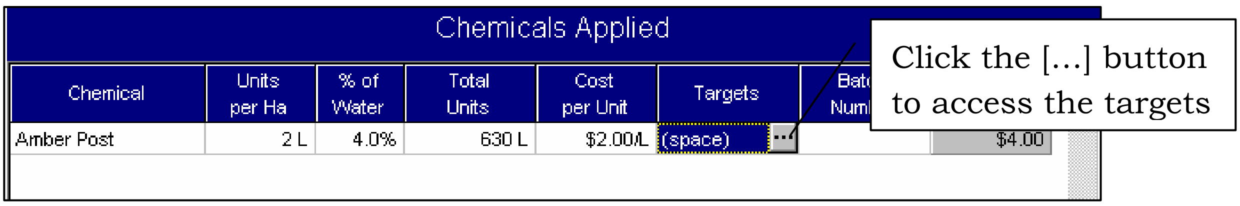
Please note that if you are spraying crops, the Growth Stages list will be filtered to only show stages from the selected crop types.

For cotton and other row crop growers, the fields **Configuration %** and **Band %** can be entered… these relate to the row configuration (ie. The "Skip row" scenario) and the way the boom is set up. These fields will only be displayed for cotton producers.

To create a tank mix of chemicals or to use a pre-saved mix, check the **Tools** button options.
To add a new chemical to your list… again check the **Tools** button

Chemical Targets

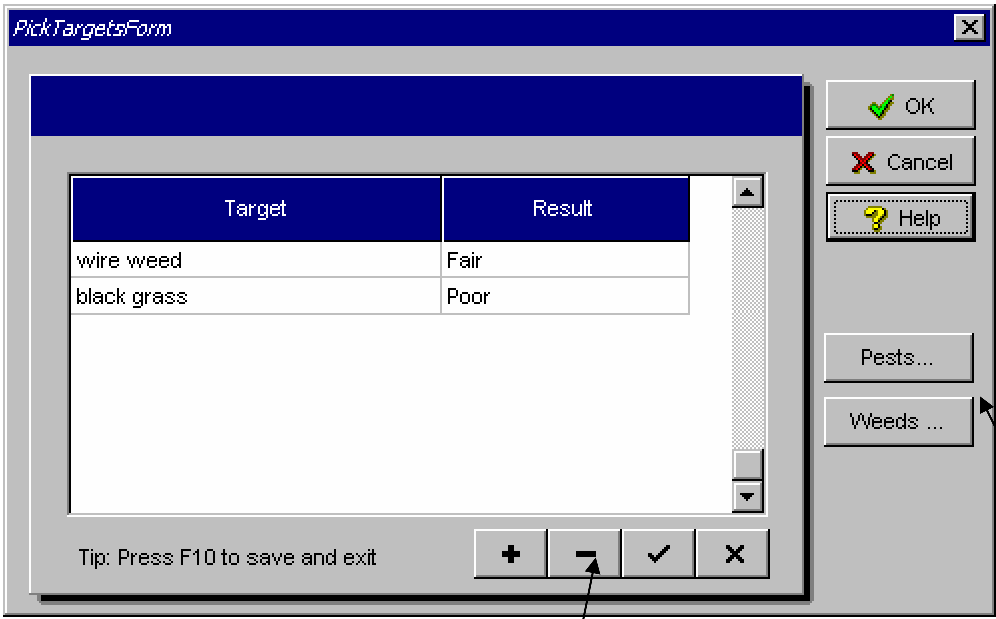
A spray target ④ is either a pest, disease or weed. Under



Configuration you can establish a list of weeds or pasture species and in the *Crop Types and Associated Lists* screen you can set up a list of pests and diseases for each crop type.
Depending which chemical type you are entering into the wizard, **PAM** will present you with a list of appropriate targets.
On this form you will see that multiple targets can be selected for the chemical. You can add to the list of targets on the fly using the **Weeds…** or the **Pests…** buttons,

You can select the Result for each target. This list is in-built so you can't change or add to it.

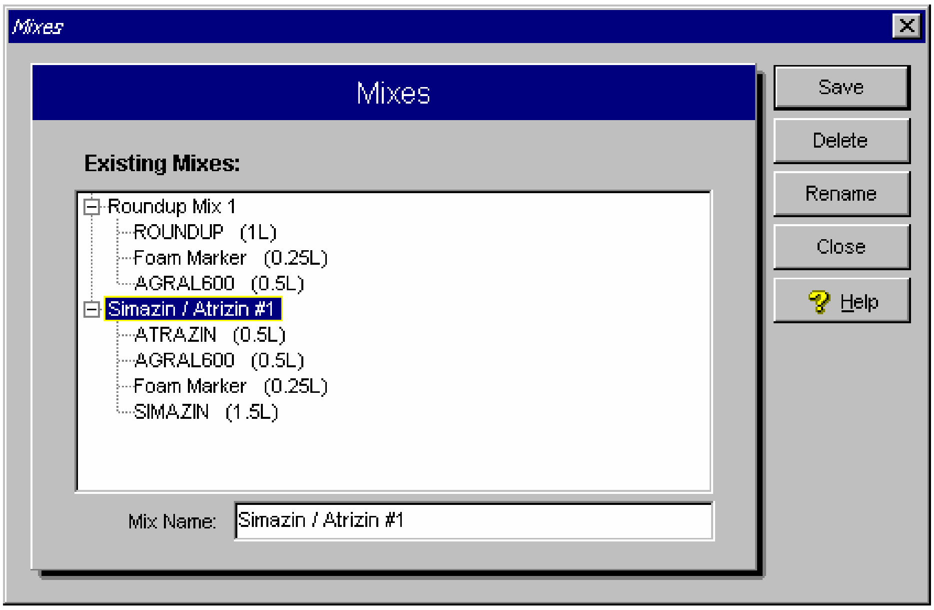
If you use your keyboard to enter data here, use <Alt+Down Arrow> to pull down the pick-list of targets or results. Use the down arrow key to add a new line (or record) in the grid.

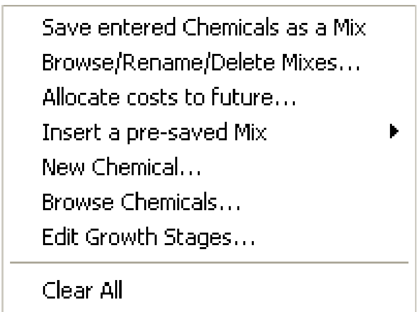


These buttons can be used to Add, Delete, Save and Cancel a row or record in the grid

Use these buttons to add new items

Chemical Tank mixes, Fertiliser mixes, Machinery combinations

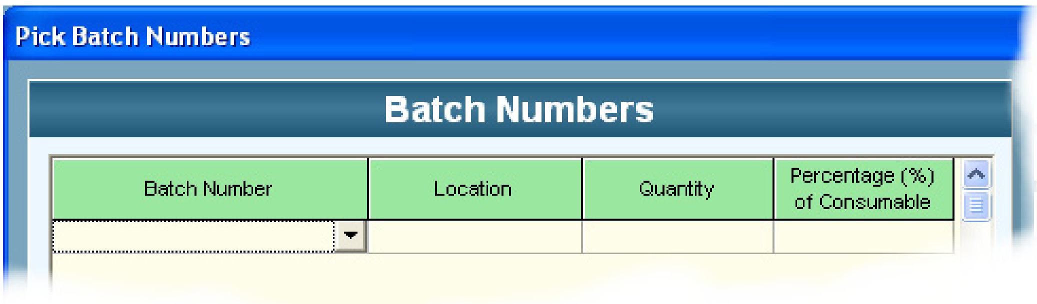




To create a mix of any of these crop inputs, simply select each mix member and the rates (if applicable) while entering data in the Add Activities Wizard. When you have all the items selected click on the **Tools** button ⑥ on the Add Activities Wizard and select the *Save selected … As A Mix* option. The form displayed here enables you to name the mix (and delete and rename existing ones) for future use.

Chemical Batch Numbers

See ⑤ on the Chemical Details Wizard Page. Click on the […] button to access the data entry dialog.



If you use the inventory system fully, a list of current batch numbers will be available in a pick list for you to select. If you are not using the inventory of consumables, you can type a batch number into the cell(s) under the column titled “Batch Number”.

The system caters for situations where you have used more than one batch number in a job. Enter in the quantities of each batch number used to keep your inventory in order.
Using the inventory system enables you to keep a record of chemical batch numbers. **PAM** will look up your list of batch numbers for the chemicals you select in the Add Activities Wizard. When a batch number is no longer current, you will need to manually inform **PAM** that it has been used up (ie. No longer current). The inventory system is not a "live" system due to the problems involved in maintaining such a system in a farming situation. See more information on this subject in the Inventories Chapter (13). Batch numbers can be recorded for fertilisers as well.

Entering Chemicals in Total Units or Water Percentages

If you know the total units of a chemical that were applied in a job you can enter that value and **PAM** will calculate the rate for you.
If you know the amount of chemical (or wetting agent) in terms of its percentage of the water rate… enter it in that form, **PAM** will calculate its rate and the total units for you.

Applying Fertilisers

Your fertilisers list is set up under *Configuration / Consumables.*

Steps for entering fertiliser applications

Follow steps 1 to 8 (Adding a Paddock Activity above) having selected *Fertiliser Application* from the Operations Pick-List.
On the fertilisers details page…
Check the **Tools** button options for possibilities… You can add to the list of fertilisers "on the fly", create special blends, create and use existing fertiliser mixes… You can also display "Tips". We suggest that you leave the tips on display at all times.

If you know the total units of a fertiliser that were applied in a job rather then the application rate you can enter that value and **PAM** will calculate the rate for you.

Fertiliser Blends

As farming becomes more and more sophisticated, some are opting for special blends of fertilisers. To create a special blend in **PAM**, start entering a Fertiliser Application operation as normal… on the Fertiliser details page of the Add Activity Wizard click on the **Tools** button and select the option *New Special Blend.*

You will then see the Fertiliser Special Blends Wizard…
On the first page a Dual List Box is provided for you to choose the nutrients… and enter the percentages. Simply click each element of the fertiliser blend and enter their percentages on the right hand column of the selected items box.

When done, click **Next…**
On page 2 you can select the purchase units, application units and purchase price of the special blend.

If this special blend is to become a regularly used blend on your farm, you can choose to name it and it will become a member of your fertiliser list… the one you set up under the C*onfiguration* menu. You will notice that **PAM** provides a default name… constructed from the nutrient percentages. (eg. P12:S10:N40)

If you don't intend to use this special blend again (or even if you are unsure) choose not to save it. It will be used for your reports but it won't be available from a pick-list of fertilisers.

Entering machinery details

Machines can be set up in the *Machinery/Manual Tasks/Staff & Contractors List* under *Configuration.*
In there, as you add new machines you will see that you can tell **PAM** the operation that a machine is to perform… (Chemical Application, Fertiliser Application, Harvesting, Planting/Seeding etc.). You can also set a machine up to perform "Any operation" . Typically tractors will be set up in this way.

As you will be aware **PAM** enables you to enter machinery usage records immediately after (or as part of) entering a spraying, planting or fertilising job.
On those occasions the operation will default to the initial operation that you chose…
For example, if you chose Chemical Application, the operation for the machinery event will be "Chemical Application". Only machines that you have set up as Chemical application machines and those that you have set up as "Any operation" machines will be included on the machinery pick-list.

There will be occasions when you will be performing machinery operations in isolation…. Then you will select *Machinery Operation* from the operations list.

Entering harvest deliveries

The harvest records can be entered on a load by load basis or as a total amount at the end of harvest.
PAM will continually add up total yields and automatically calculate average yields and prices. These averages and totals will be transferred to the Crop-Season records automatically.
Although **PAM** enables you to enter numerous harvest delivery records for a crop, you may only want to enter the harvest machinery event and costs once.

Please Note :
If you use harvest machinery costing by <u>Harvest Unit</u>, you should leave the machinery entry until all harvest deliveries have been entered so that PAM can use the total harvested quantity to accurately calculate the costs of the machinery operations.

Sundry Consumables

You can set up a list of sundry consumables under *Configuration/ Consumables.* This list might include any consumable that you use while performing paddock activities. For example, one **PAM** user

has set up “Kilometres” as a sundry consumable. He enters the Km’s traveled when doing crop monitoring… charging his paddocks 12 Km @ $0.55 / Km. To enter sundries consumed simply select the activity “Sundries consumed”, enter the date, select the paddock and enter the details.
Any consumable item that does fit into the category fertiliser or should go into the sundries list.

User Defined Units

When setting up a list of sundry consumables you may find our list of units of measure does not cater for all your needs… no problems, just add your new units under *Configuration/Customise your **PAM** QA Plus program/Units of Measure.* For example, if you want consume wire in “Rolls” then you could add a unit called “200 Metre Roll”.

Hay and Fodder production

Hay production

Hay production is defined (for **PAM**’s purposes) as the cutting of a previously established crop. So… before you attempt to record hay production from an oat or oat-pea mix crop or similar, you must have previously recorded the seeding or planting operation for the crop.

CASE 1 : Just a “section” of a cropped area is cut for hay...

PAM will want to know if you are cutting the entire crop or just a section of it.
Sometimes people cut a few laps around the outside of a paddock for hay. This is a typical case of a section of an established crop being cut for hay.
In this case enter the area cut for hay in the worked area field.
PAM will establish this hay area as a new main crop section in the paddock. All operations (and their costs) that you have carried out on this cropped area up to this point will be allocated pro-rata to each area.

CASE 2 : The whole cropped area is cut for hay...

This case is a simpler one and requires no “behind the scenes” processing.

Fodder production

By **PAM**’s definition, no previous seeding operation has been entered for the area being cut. It is assumed to be pasture or a perennial crop that is being cut. There is tie-up between the Paddock and Livestock system in this area. You are asked to supply a “Locked-Up” date (that is the date the paddock was locked up for the fodder to grow) and a “Stocking Rate Forgone” value. These are optional.

CASE 1 :

You choose a paddock that has no recorded cropped area for the current season, **PAM** will assume you are cutting pasture, lucerne or some other fodder crop. If you have chosen the paddock in error... escape out.

CASE 2 :

You choose a paddock that has a cropped area and you are cutting another section of that paddock for fodder, you can choose to do that. **PAM** will treat this slightly differently to CASE 1.

1. In both cases you will be asked for the area of the fodder crop.
2. Then select the fodder crop from the list. If it’s not on the list you can add it here.
3. Now enter the date the paddock was “locked up” to produce the fodder growth.

If you are dealing with CASE 1, you will be asked to enter the stocking rate forgone while the paddock was locked up for fodder production. The number of days the paddock was locked up multiplied by the stocking rate forgone will give us the number of Livestock Unit (eg. DSE) grazing days per Hectare lost. This value can be used (optionally) later to credit the paddock with stock-grazing days in the annual paddock stocking rate summary reports. If you have sold or intend to sell the conserved fodder, enter the price/tonne.

Diary Screen Buttons : More information

Using "…to Season"

If you have a single paddock activity on the Paddock Activities Diary screen and you click **…to Season**, you will go straight to the Paddock-Season screen for that paddock.
If there are several entries for the day, first highlight the required activity from the list and **PAM** will transfer you to the Paddock-Season screen for the selected paddock.
To find out what you can do in the Paddock-Season screen, see the next chapter.

Using the Paddock Activities Diary Filter

The **Filter** button enables you to exclude all data from your current focus except a specified activity. To operate the filter, click **Filter** then select the activities from the pick-list. Thereafter, until you click **Filter** again, only the specified activities will be seen on your diary screen.

The Paddock Activities Diary Report

This report can be found at the top of the *Reports/Paddock-Season Reports* menu. It allows you to print out in a chronological order, all events in one or more selected paddocks between two chosen dates. The **Report** button on the Paddock Activities Diary screen will produce a report for the currently displayed day only.

Paddock Activities Diary and the Farm Filter

If you have the Farm Filter ON, the Paddock Activities Diary will only show records for the currently "active" farms. You will see the list of farms that are currently "IN" along the bottom of your screen in the status bar (that is, if you have it on display… you can hide the status bar via the *Configuration / Screen* option)
If you have a date on your screen with no data displayed this indicates that there were no paddock activities performed on the current farms for the date on display.

Weird or missing data

If you suspect that some data has gone missing from your Paddock Activities Diary, the steps to follow are these

1. Go to the **Tools** menu
2. Select *Rebuild Diary*

If the problem still exists, you should check in the Paddock-Season screen for any record that you think is missing. It could be that an incorrect date was used when the "missing" record was first entered. You may have to delete the record if you find that the date is incorrect, and re-enter it.

The Copy option

To copy activities that appear on your Paddock Activities Diary screen…

1. Select *Copy* on the **Tools** menu
2. A list of copy-able jobs is displayed… select those jobs you want to copy
3. Select the paddocks or areas to copy to (see the **Areas** button)
4. Enter the date and season for new activities
5. **PAM** proceeds to copy those selected tasks and their details

A typical use for this option would be to enter repetitive tasks that involve complex details. For example, a complex chemical tank-mix and its associated machinery details. Once you have used and entered it once, you can go back to that date and copy all the details to any other paddock(s) or cropped areas on any other date.

Chapter 6

The Paddock-Season Screen

Chapter contents

General information

The Paddock-Season screen is best described as a screen of review, where all the activities carried out in a Paddock in a single Season are displayed.
The data entered in the Paddock Activities Diary is transferred to the records displayed in this screen. Data can be entered in this screen as well. The steps are the same as those for the Paddock Activities Dairy Add Wizard. Please refer to the section… Adding a Paddock Activity in Chapter 4 and 5 for details.

The total Paddock costs and income are collected together in this part of the program and can be displayed by clicking on the *Tools* button and selecting *Season Costs.*

The Screen Layout

The outline on the left side of the screen shows Farms and Paddocks that have data recorded in the selected Season. The Season is displayed above the outline. You can skip between Seasons (when you have more than one Season's data!) by clicking on the up/down "spinner" buttons or by selecting a Season from the pull-down list.

Please Note : The data displayed on this screen is collated by Season rather than a calendar Year… unlike the Paddock Activities Diary where the outline lists months for a calendar year.

The data is collected together on this screen by record type. Crop harvesting records, chemicals, fertilisers, irrigation records and so on.
You can control the order in which these records are displayed… check the **Filter** button for this option. You can also view the records in three different modes (see under **Tools**)… to give optimum viewing for various screen resolutions (see details on Screen Settings in Chapter 3).

The Buttons

Add : To start the Add Activity Wizard to enter operations. This will operate in the same as the Add Wizard in the Paddock Activities Diary (in fact it is the same wizard!).
Edit : To edit the job you are highlighting on the list on the main section of the screen.
Filter : To control the display of operations… you can opt to hide or display one, all or several operations (You should become familiar with this as it will prove very useful) and you can re-arrange the order of display of the records.
…to Diary : To jump to the Paddock Activities Diary View for the activity you are currently highlighting on the main section of the screen.
Tools : To display a list of options for tasks you may need to perform from time to time

- *Paddock Season Notes* : Add notes to the Paddock Season for the selected year.
- *General Paddock Notes* : Add general notes to the Paddock for the selected year.
- *Job Notes for Selected Record* : Add notes to a selected record.
- *Copy Activities* : To access the facility that enables you to copy activities listed on the currently selected Paddock-Season to other Paddocks or cropped areas on the same or any other Season.
- *Copy Actuals to Budget:* To make budgeting (Season planning) a bit easier, you can copy an entire Season's list of events to one or more selected paddocks for a budgeted Season.
- *Change Activities Date/Season :* To access the facility that enables you to change the dates of recorded activities. This option displays all activities listed for a Season enabling you to change one all or several of the dates in one session.
- *Create New Paddock/Season* : To create a new record.
- *Assign Project for Job:* This option will only be showing if you have purchased the special project costing add-on module.
- *Season Costs and Income* : To display the Paddock-Season or crop-Season costs and income summary screen.
- *Browse any dataset :* To access the list of data tables for browsing in a table or spreadsheet style view.

- *Display Size :* To alter the size of the record display area.
- *Filter/Adjust Display Order :* This displays the same dialog as the **Filter** button options.
- *Rebuild Current Paddock Financials :* Rebuild the financials for the currently selected Paddock to update any changes in costs and income.
- *Delete selected Paddock/Season :* This option totally deletes all the Paddock-Season records on display.
- *Show Actuals, Plans and Recommendations: (See the Chapter on Plans, Budgets and Recommendations later in this manual)* You can show or hide records of these three types. Generally you would always want to view your actual records. If you use either recommendations or plans, you can choose to hide and show them using these options … or alternatively you can click on the three buttons in the status bar at the bottom the diary screen …

Reports : To generate the common summary reports of the currently displayed paddock-season activities.

While you have the Activities Diary and the Paddock-Season view on display you can also access the main menu options and the main tool bar options.

The activities records are listed on the Paddock-Season Screen in summarised form. You can see the full detailed view of each record by clicking on the **Edit** button or by double clicking your left mouse on a record.

Adding a Paddock-Season record

Click **Tools** then select *Create New Paddock/Season* from the menu.

Please note : If you enter your Paddock-Season data in the Paddock Activities Diary, this task (Setting up a new Paddock-Season record) is done for you automatically.

Select the Paddock from the list.
Enter the year (the year must be a proper year showing the century as well as the year, ie. Not **05** but **2005**)
That's it!

Paddock notes and Paddock Season Notes

Paddock Season notes can be added via **Tools**.

Printing the Paddock-Season report

To generate a full summary of all records on the Paddock-Season screen, use the **Report** button.

Total income and costs

To view the total costs for the Paddock-Season click on the **Tools** button and select *Season Costs.*
You will see on that screen that you can view Paddock-Season income and expenditure for all Paddocks all Seasons. You will also notice that you can view crop-Season income and expenditure.
If you want to enter a crop insurance type and the insurance costs, this is the place to do that.

Deleting a Paddock-Season record

To delete the entire screen-full of records (all fertiliser, chemical, working methods and cropping records) select ***Delete*** from the menu .
To delete individual records from the Paddock-Season details you will need to use ***Edit***, then select the record to delete.

PAM will warn you and ask for confirmation before deleting any record.

Other costs and income .

This facility enables the user to be able to define ANY custom items that may draw an income or cause an expense on a paddock or whole enterprise basis. An example of a paddock or whole enterprise income or costs would include:

Costs	Income
Insurance	Subsidies
Tax	Tourism
Freight	

How to get there

Once in the Paddock Season screen  or 

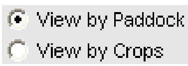
, simply select the **Tools** button, then *Season Costs and Income* from the drop down list.

The next screen will be the Season Costs and Income Summary Screen…

Costs and Income Summary Screen

The Costs and Income Screen shows you:

A list of the Farms & paddocks or crops down the left hand side, by selecting one of these you will see the summary of the costs and incomes for that particular paddock or crop.

Please note: the 

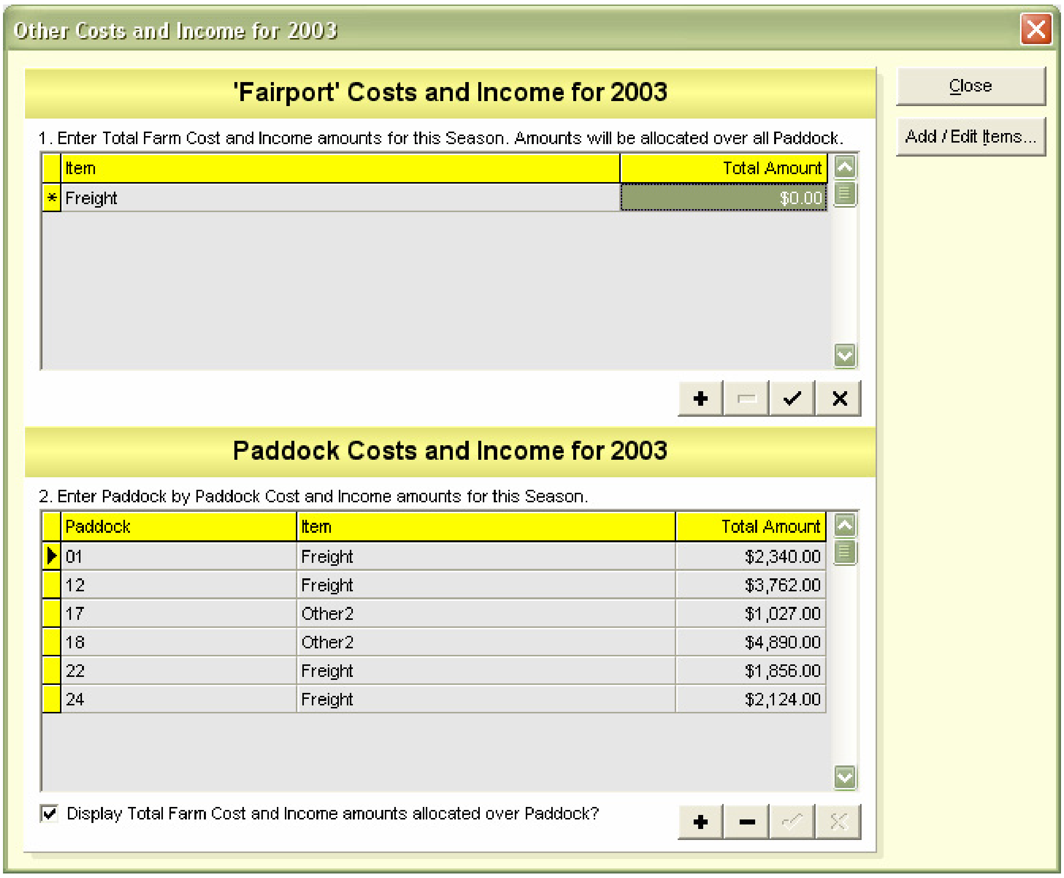
selections at the top of the screen, changing this selection will change the screen view considerably.

: Having 'View by Paddock' selected will enable you to view, add and edit the costs and incomes on a paddock by paddock basis. The list down the left hand side of the screen will show the Farm/Paddock selection list.
You will be able to add, edit and delete custom Costs & Incomes with this option selected for the individual Paddocks or the whole Farm.

: Having the View by Crops selected will allow you to view, add and edit the costs and incomes on a crop by crop basis. The list down the left hand side of the screen will show the current season crop selection list.
If you have the "View by Crop" selection, you will notice that you are able to insert directly into this screen the insurance costs and class for the crop in the currently selected season.

Add/Edit Costs and Income Screen

To add or edit a custom Income or Expense for a given Paddock or over the whole Farm, click the **Other Costs and Income** button.



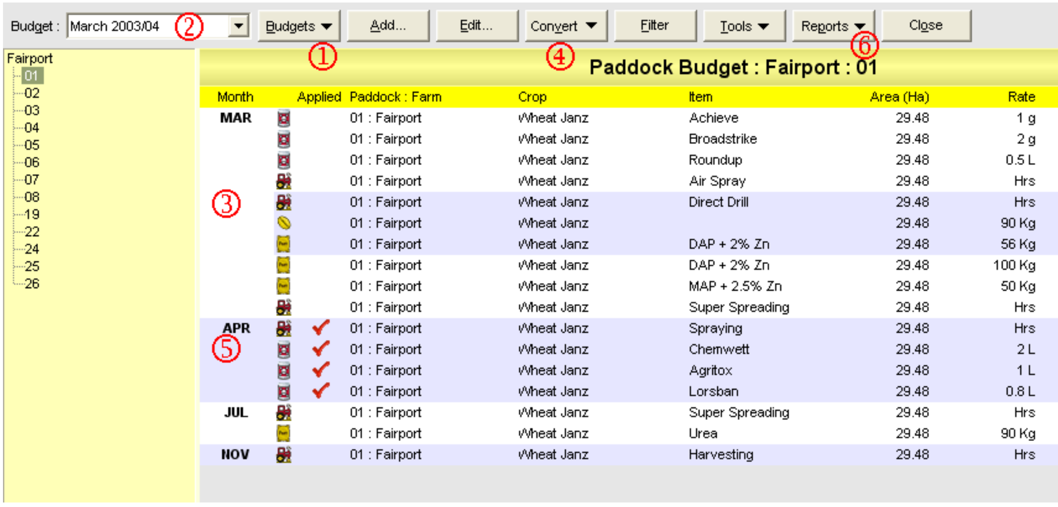
Top box (1): Entire Farm costs and income (apportioned over all the paddocks). If you enter a cost for custom cost or income into this part of the screen you will notice that the cost is then divided up over the Farm paddocks by the arable area of the paddocks. After the item has been selected and the amount has been added (hit the ✓ and the bottom box will be refreshed with the updated figures for the costs and incomes that have been added).

Bottom box (2): Individual paddock costs. Add a cost or income for a specific paddock.

Paddock-Season Budgeting

The budget window looks very much like the Paddock Activities Diary screen and the Paddock Season Summary Screen…

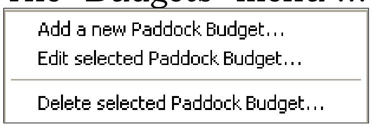
Figure 1



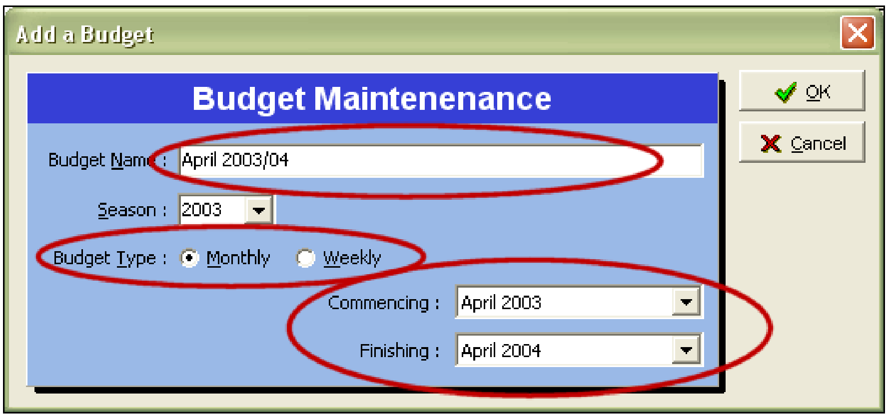
Month	Applied	Paddock : Farm	Crop	Item	Area (Ha)	Rate
MAR		01 : Fairport	Wheat Janz	Achieve	29.48	1 g
		01 : Fairport	Wheat Janz	Broadstrike	29.48	2 g
		01 : Fairport	Wheat Janz	Roundup	29.48	0.5 L
		01 : Fairport	Wheat Janz	Air Spray	29.48	Hrs
		01 : Fairport	Wheat Janz	Direct Drill	29.48	Hrs
		01 : Fairport	Wheat Janz		29.48	90 Kg
		01 : Fairport	Wheat Janz	DAP + 2% Zn	29.48	56 Kg
		01 : Fairport	Wheat Janz	DAP + 2% Zn	29.48	100 Kg
		01 : Fairport	Wheat Janz	MAP + 2.5% Zn	29.48	50 Kg
		01 : Fairport	Wheat Janz	Super Spreading	29.48	Hrs
APR	✓	01 : Fairport	Wheat Janz	Spraying	29.48	Hrs
	✓	01 : Fairport	Wheat Janz	Chemwett	29.48	2 L
	✓	01 : Fairport	Wheat Janz	Agritox	29.48	1 L
	✓	01 : Fairport	Wheat Janz	Lorsban	29.48	0.8 L
JUL		01 : Fairport	Wheat Janz	Super Spreading	29.48	Hrs
		01 : Fairport	Wheat Janz	Urea	29.48	90 Kg
NOV		01 : Fairport	Wheat Janz	Harvesting	29.48	Hrs

Special Features of the Budget Screen.

The “Budgets” menu …



Add a new Budget. Click on this and see how we create a new budget:



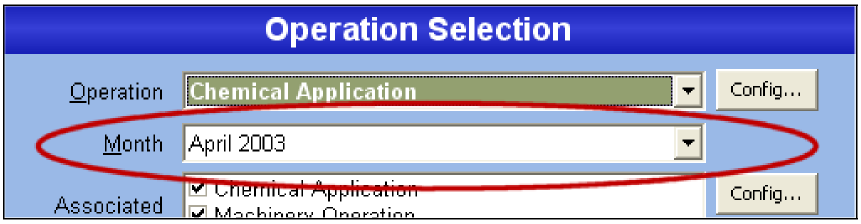
As you can see the steps are

a) Name it,

b) Select the Season

c) Nominate whether you want the records to be entered on a weekly basis or a monthly basis… then
d) set up the start and ending months or weeks.

Monthly Budgeting: If you choose to enter records on a <u>monthly basis</u> the first page of the "Add Wizard" looks like this:



Weekly Budgeting: If you choose to enter records on a <u>weekly basis</u> the first page of the "Add Wizard" looks like this:

The Budget Name is displayed at the top left of the budget window (see ② in Figure 1) . Other budgets can be easily retrieved using this pick-list.

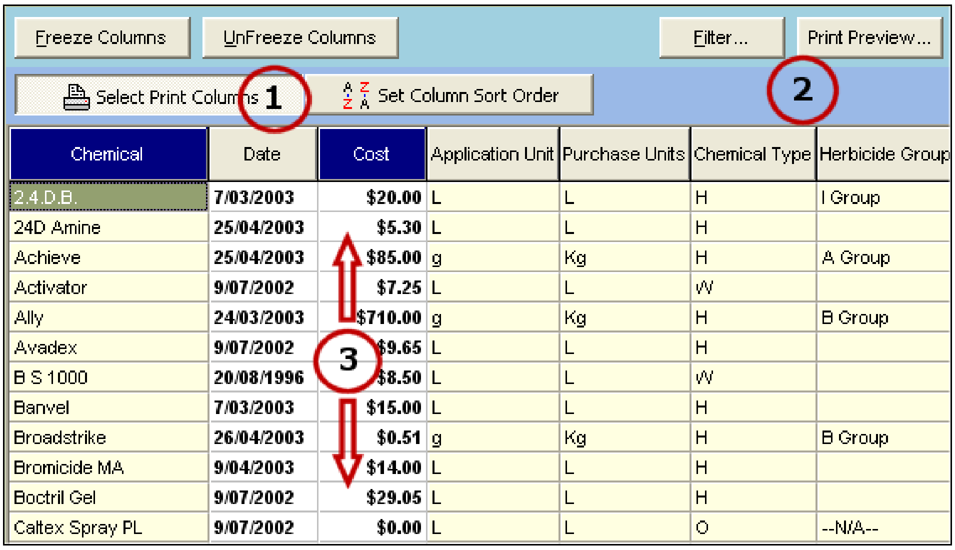
1. You see in Figure 1 above that we have used "Months" as our budget record intervals. By doing so, we get a listing of months down the left side of the screen. If we chose weekly intervals, we would see weeks listed down the left of the screen. (see ③ in Figure 1)
2. When your budget is completed you can come back to it at any time and convert the budgeted activities to actuals or to plans.
3. When a budgeted record or job is converted to a plan or actual, you will see a red "tick" in the Applied column. (see ⑤ in Figure 1)
4. PAM has several useful reports (see ⑥ in Figure 1) for budget data and several others that may be convenient at budgeting time. Of course all the reports from your historical records are also available via the *Report* menu.

Costs of consumables in PAM Budgets

The list of consumables and their associated costs are shared between the Budget data and the Actual data. Therefore you need to be a little careful when you make any changes to the costs per unit of your consumables.

Suggestion 1

In *Configuration / Consumables* … You could print out your current costs per unit by clicking on the **Browse** button and then:

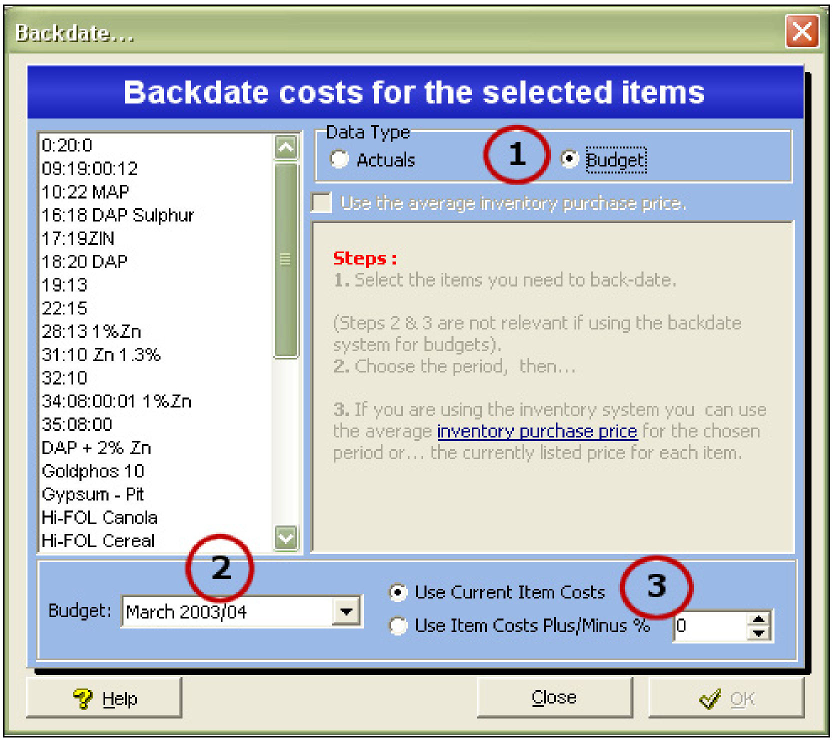


Chemical	Date	Cost	Application Unit	Purchase Units	Chemical Type	Herbicide Group
2,4-D.B.	7/03/2003	$20.00	L	L	H	I Group
24D Amine	25/04/2003	$5.30	L	L	H	
Achieve	25/04/2003	$85.00	g	Kg	H	A Group
Activator	9/07/2002	$7.25	L	L	W	
Ally	24/03/2003	$710.00	g	Kg	H	B Group
Avadex	9/07/2002	$9.65	L	L	H	
B S 1000	20/08/1996	$8.50	L	L	W	
Banvel	7/03/2003	$15.00	L	L	H	
Broadstrike	26/04/2003	$0.51	g	Kg	H	B Group
Bromicide MA	9/04/2003	$14.00	L	L	H	
Boctril Gel	9/07/2002	$29.05	L	L	H	
Caltex Spray PL	9/07/2002	$0.00	L	L	O	--N/A--

1. Select the consumable items column and the cost column for printing then…
2. Print the report so you have a hard copy of the list prices, then
3. Alter the prices to suit your budgeting session

Suggestion 2

Enter your budget records using the costs that are in the configuration lists and use the “Backdate Costs” facilities under the *Tools* menus where you set up your lists …



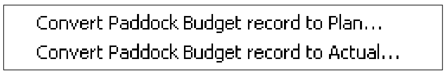
In the Backdate costs window, choose :

1. Data Type = Budget
2. Select the Budget you are working with
3. Choose to use the current item costs (assuming you have worked through the original costs and edited them for the current budget) … or … use the current costs in your lists altered by a percentage (either increased or decreased).

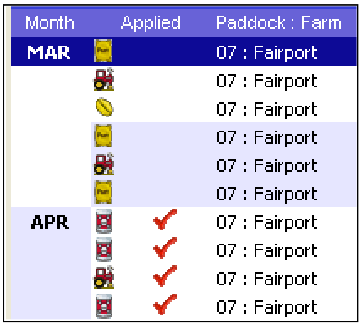
Harvest Income in PAM Budgets

As you would be aware, you can backdate harvest income in the same way as you can backdate consumable costs in PAM .
If you look at the *Configuration / Crop Types and Associated Lists and Settings* screen, Harvest Classes tab … you will see a “Backdate Income” button.
Click on this to alter the income received for your budgeted harvest entries. Increase or decrease the harvest income per unit by a percentage.
TIP: Add a new harvest class called “Budget” for each crop type so you only need to alter the price of one harvest class for budgeted harvest entries.

Converting Budget Records to Plans or Actuals

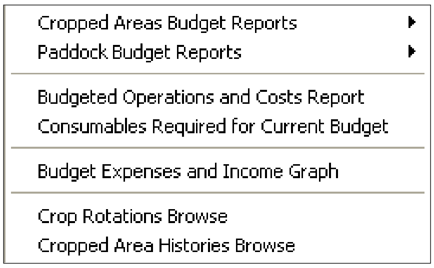


As the Season unfolds, you can (if you want to) convert the budgeted activities to plans or to actuals
Obviously things may change and your budgeted records will need some editing. We therefore display your budgeted records in the new Edit Wizard where you can set the correct job date and make whatever changes you need to.
Please note that budgeted records are retained for future reference. When a budgeted record is converted to a plan or actual, you will see a "tick" on the budget screen.



If you want to you can convert a budgeted record more than once! By using the "Areas" button on the Edit Wizard, you can choose to apply the budgeted activity to any area(s) (paddocks) on the farm.

Special Budget Reports



All budget reports can be found on the "Reports" menu button on the budget screen. There are no budget reports under the main *Reports* menu.

Almost all of the standard reports for actual records have been adapted for use with the budget data.

You will also find several reports which have been especially written for budgeted data only including a report showing all your chemical and fertiliser requirements for the budgeted season.

(this page is left intentionally blank)

Chapter 7

Laboratory Test Results

Chapter contents

General information

The "tests" systems in **PAM** are designed to provide as much flexibility as possible. Due to the number of laboratories being used and the many different elements being analysed, we have provided you with a completely "user-configurable" system.

Water Tests

This section is intended to be used for people who need to get water analysed for irrigation or stock water purposes.

Nutrient Tests

PAM can generate nutrient audit reports, which take into account the nutrients applied (via applied fertilisers) and nutrients removed (by harvesting crops) from areas. You can have your harvested produce laboratory tested for its nutrient content… hence the screen in PAM to enable these results to be entered.
If you use this system to record the nutrients removed by your crops, PAM will look to these results to generate the nutrient removal part of the nutrient audit report.

Pasture Composition and Quality

The pasture monitoring system is part of the Livestock system but it operates in a similar way to the laboratory tests data entry screens. The only difference is that instead of setting a list of test items in advance, you must select the pasture species that make up the composition of the pasture from a list each time you enter results.
If you refer to pasture quantity as “Feed on offer” … that is the same as Kg/Ha dry matter.

See on-line help for the data entry steps.

Setting up

The tests systems in **PAM** can be configured to suit almost any laboratory analysis results imaginable.
You can select the test items you require and also the order in which you want them displayed on your screen.
Because the setting up and use of all the tests systems is virtually the same, there is no point in describing each of them.
To select the elements of your choice and their order of appearance, and the guideline levels, see how in Chapter 3. See also on-line help for the setup steps.

Entering data

Click **Add** to add a record.

Select the area, the date, the site number and in the case of soil tests, the depth from which the soil was taken.

Once this position data has been entered, click **OK**.
You can now enter the test results in the data entry grid.

If you need to add more test items into your data entry grid, check the **Tools** button… you'll see the *Soil Test Setup* option (in Leaf Tests, Water Tests, Nutrient Tests you will see the appropriate **Add…** option).

If you add more test items in the setup system after you entered the records in the data entry screens, you can add in the extra items… use the *Generate Test Items* option. This is designed to populate the data entry grid with any "missing" items… or items that have been added into the list since you first entered the records.

Special fields, which need further explanation :

Crop

This field on the soil and leaf test screens is put there so you can associate the test results with crop being grown on the area tests were carried out.

Site number

The site number field is provided to distinguish between test sites in a single paddock. **PAM** will not allow you to enter the results of more than one site for a single paddock on the same date.
ie. The Paddock-Date-Site relationship must be unique.
In the reports, the results for all sites for a single paddock are averaged. So, to get an average value of your Phosphate levels for all sites for all paddocks for a year, simply generate a report, selecting "Phosphate", nominating the period and choosing "All paddocks".

Growth stage

This field is only available in the leaf test system. Growth stages are entered via a pick-list. If you need to you can add to the list "on-the-fly".
A graph of leaf test results vs. growth stages is available. This graph can show up to four different results plotted together. If you need to plot "macro" and "micro" elements together, you are advised to plot just two at a time.

Reports

When generating soil, leaf or water test reports, you have the choice of selecting one, all or several elements to list.
You may find, that the number of elements selected for printing, may exceed the width of your printer, even in landscape print mode. There is nothing we can do about this. Your solution to this problem is to create more than one report. However, in most cases this should not be a problem.
If you choose any items that you have not used (ie. There are no records for the selected items) you will be informed before the report is generated.

Chapter 8

Rainfall

Chapter Contents

Rainfall system - overview

The rainfall database system is as versatile as it is powerful. Up-to-date technology has been used to make your rainfall records come to life for you in the graphical reports. Automatic calculations and conversion facilities have been built in to make your task easier.

As you will find throughout **PAM**, this subject is well covered in the on-line help system.
For step by step help while using **PAM**… use your on-line help.

Getting started with the rainfall database

Configuring your rainfall database

To set up your list of rainfall stations (if you have not done this already)

1. Select *Rainfall Stations* on the main *Configuration* menu
2. Click **Add.**
3. Type in your rainfall station name

Entering rainfall data

Rainfall may be entered into this program as monthly totals or on a daily totals basis.

In general, people will enter any existing records they have in old rainfall charts or diaries into **PAM** as monthly totals and enter current records on a daily basis. So you might start by setting up the current year in the "Daily totals" tab, then when you get time later, set up all your old records in the "Monthly totals" tab. All graphs and statistical analysis of rainfall is done on a monthly totals basis, so don't think you need to enter all your historical records on a daily basis to suit the program's requirements.

To add a new rainfall station/year record

1. Click **Add**
2. Select either *Daily totals* or *Monthly totals*
3. Select your required Station by selecting from your list
4. Now enter the year from the keyboard - EG. type 1999.

If the station/year combination has already been set up before, you are warned by the message

This Station/Year setup already exists!

To enter or update daily rainfall data

1. Make sure you have the correct month on the screen
2. Move the cursor to the required date using the cursor keys
   -OR-
   just click on the date with the left mouse button
4. Type in the value

To Delete a station/year record

Select *Delete* from the **Tools** menu.
Please note that ALL TWELVE MONTHS will be deleted if the year is entered as daily totals. You can not delete a single month from the system.

To move through the monthly records

Use the buttons either side the month name or click on the required month on small month totals graph.

Monthly totals rainfall records

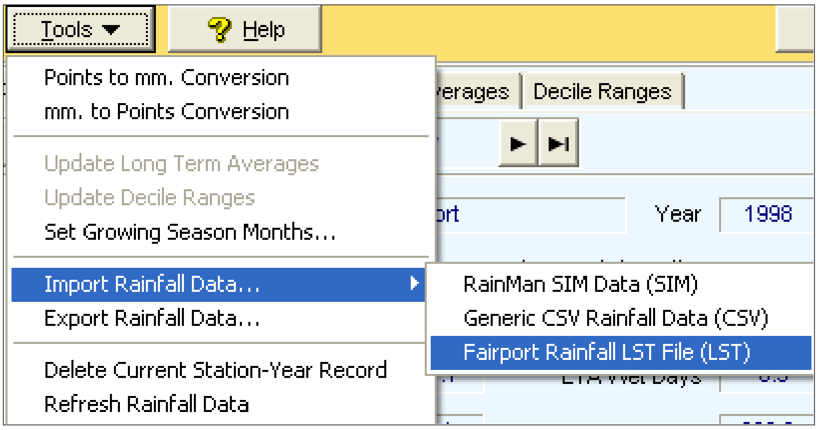
Rainfall may be entered into this program as monthly totals or on a daily basis as the rainfall is measured.
In general people will enter any old rainfall records they have on paper into **PAM** as monthly totals and enter current records on a daily basis. So you might start by setting up the current year in the "Daily totals rainfall records" screen, then when you get time later, set up all your old records in the "Monthly totals" screen.

> ***Please note***
> ***Rainfall entered as monthly totals can not be updated in the daily totals data entry screen nor can data entered on a daily totals basis be updated in the monthly totals screen.***

If data has been entered on a daily totals basis the following message is displayed...

Data for this station/year combination has been entered in the daily totals tab.

Tools options



Points to millimetres conversion facility

Use this to convert records entered in points to millimetres..
If you select ***Proceed*** the conversion will take place immediately.

Please note :
Only the currently displayed data will be converted. If you are viewing a record, which was created by entering the information in the daily totals screen, then ALL DAILY recordings will be converted as well.

Millimetres to points conversion facility

This is identical to the ***Points to millimetres conversion*** facility but in reverse. Please take care when using this facility. **PAM** does not remember what units your rainfall is displayed in. All calculations in **PAM** assume millimetres are in use.

Generate 'Long Term Averages' for the current station

The long term averages for any rainfall station may be entered directly into the Long Term Averages screen from either the Bureau of Meteorology records for your area or from your own calculations. However, if you consider that you have sufficient data in your database you can generate the monthly averages and have them automatically inserted into the Long-Term Averages screen for you.

Please Note : Only average monthly rainfall totals are calculated. The average number of wet days is only calculated if this information has been entered in the monthly totals tab or if all data has been entered via the Daily Totals tab.

Generate 'DECILE' ranges for current station

The decile ranges for any rainfall station may be entered directly into the Decile Ranges tab. The data can be obtained from the Bureau of Meteorology records for most areas.
However, if you consider that you have sufficient data in your database you can generate the decile ranges and have them automatically inserted into the Deciles screen for you. Sufficient data is considered to be 65 years or more. The value of the results of the calculation is determined by the number of years data you have and also the accuracy of that data.
Please note : The current year will be excluded from the calculations if the year is still in progress.

Please Note : The Decile Ranges system is of no use to you unless you have a winter rainfall type season. The Deciles tab will not be available to PAM users who have set their Season to anything but a Winter Rainfall (calendar year season) under Configuration / Customise your PAM program...

Set Growing Season Months

As a result of **PAM**'s history, many users operate in the "dryland" cropping regions of southern Australia. In those areas, the concept of potential yield is used as a guide to management. The growing season for winter crops is usually April – October. The potential yield we are seeking here is traditionally the potential Wheat Yield for the district (around 11 – 15 Kg/Ha/mm rainfall). The loss to runoff or evaporation is usually in the order of 100mm and the amount of included summer rainfall is around 30%. You need only concern yourself with this feature if you are aware of its worth to you as a guide. The calculated potential yield (in T/Ha) is displayed in various places in **PAM**… the Paddock-Season View and on the monthly totals and Deciles tab in the rainfall system.

Importing rainfall data

The rainfall data obtained from the Australian Bureau of Meteorology for a rainfall recording station can be imported into **PAM** using this option. You can also import Rainman data
For a detailed explanation of the data layout for generic rainfall data importing, visit the Fairport web site / Support pages.

Exporting rainfall data

If you would like to export your data for someone else to use… this is the way to do it. The data is exported in a slightly different format to The Australian Bureau of Meteorology but can be imported into **PAM** using the *Import* option described above.

Long term averages rainfall data

The long term averages for any rainfall station may be entered directly into this screen from either the Bureau of Meteorology records for your area or from your own calculations.
However, if you consider that you have sufficient data in your database you can generate the monthly averages and have them automatically inserted into the screen for you.
This facility is available under the **Tools** menu option when at the *Monthly totals rainfall records* screen or at the *Long-term averages* screen.

To update an existing long term averages data record

Simply type the values directly into the fields displayed on the Long-Term Averages tab.

Decile ranges

What are deciles or decile ranges?
McKeague & Perry (WA Department of Agriculture) state :

> *"Deciles are a method of describing rainfall probabilities for a month, group of months or a year. Deciles, as the name suggests, are obtained by dividing the historical rainfalls for the period in question into tenths. The deciles so derived range from 1 to 9 and each has a corresponding rainfall total expressed in millimetres. For example if a monthly or annual rainfall total of "x" mm has a decile rating of 3 then less than "x" mm will be received in 3 years out of ten.*

Deciles can be summarised as follows :

Decile 9 9 in 10 seasons receive less than this amount
Decile 8
Decile 7
Decile 6
Decile 5 5 in 10 seasons receive less than (and more than) this amount
Decile 4
Decile 3
Decile 2
Decile 1 1 in 10 seasons receive less than this amount.

The decile ranges for any rainfall station may be entered directly into this screen from either the Bureau of Meteorology records for your area or from your own calculations.
However, if you consider that you have sufficient data (65 years is a recommended minimum) in your rainfall records database you can generate the information and have it automatically inserted into the screen for you.
This facility is available under the **Tools** menu option.

Rainfall system reports and graphs

Relative frequency graph.

The relative frequencies graphs show the relative chance or probabilities of specific rainfall outcomes.
Using the historical data stored in your rainfall files, **PAM** calculates the chances of getting various amounts of annual or monthly rainfall.

The graphs available for plotting relative frequencies are

1. Annual totals
   An example of this graph is shown above. The percentage relative chances of nine annual rainfall ranges
2. Monthly totals for a selected month

Decile ranges (versus selected year) graph

This graph is a line graph showing the decile ranges 1,5 and 9 for a selected rainfall recording station plotted against a selected year for the same station.
The graph shows cumulative rainfall for the months April to October.

The decile 1 line indicates the cumulative rainfall recorded for the decile 1 range. In **nine out of ten years**, there's been **more** rain than that.

The decile 9 line indicates the amount of cumulative rainfall for the decile 9 range. In **nine out of ten years** there's been **less** than that amount of rain.

Chapter 9

General Purpose Diary

Chapter Contents

Overview

The general purpose and reminder diary is a convenient place to store notes for future reference and to remind you of future appointments.
For your convenience the diary can be accessed while operating any other part of the **PAM** program.
The diary has a reporting section allowing the searching of notes for key words and even the graphing of numeric data.

Please note : You'll find plenty of on-line help on how to work the diary.

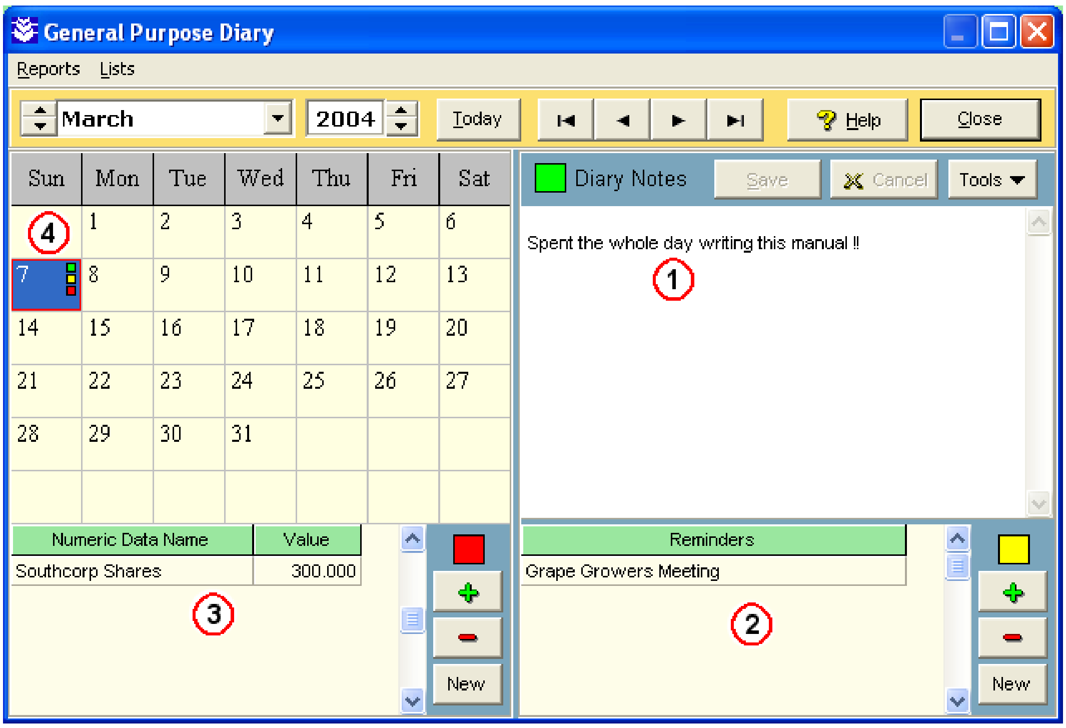


Figure 1

Using your mouse to move around

- To move from day to day within a month simply click in the box of required day.

- To move up and down a month click on the spinner alongside the month name at the top of the screen.

- To move up and down a year, click on the spinner alongside the year at the top of the screen.

- TODAY can be selected by clicking on the *Today* button

- To enter your diary text entry for the selected day simply click anywhere in the diary notes box.

Adding diary notes

To add a diary note for a specific day (See ① in Figure 1)

1. Select the day on the calendar with the cursor keys or mouse
2. Click the mouse in the text box
3. Click **Save** to save your notes when done.

Reminders

Reminders (see ② in figure 1) can be used to either forward plan or to quickly look back in time for specific events. A typical use might be to mark all public holidays.

Setting up your list of reminder tags

You can add reminders to your reminders list as you need them… see the **New…** button or you can select lists maintenance options on the menu.

Numeric data

You can enter a numeric value for a selected purpose on a day. See ③ in figure 1. This data can be subsequently graphed.
Any data that can be recorded against a date can be recorded here.

For example you could set all or any of the following…. "Wheat prices", “BHP Share prices”, “Maximum Temperature”, “Average Humidity”

See on-line help for more details on the setting up of these lists.

Diary Reports

The diary has some very useful reporting features -

Search diary notes

You can search your diary notes between two selected dates for any phrase. The report will display a list of all the dates where the phrase was found.

To search diary notes

1. Enter the word or words to be searched into the box
2. Enter the start and ending dates for the search.

If there are any entries containing the searched words, they will be displayed.

Print selected day's notes

You can print out any notes you may have entered between two selected dates.
Enter the start and finish dates for the period required. You may only want to print out one day. Just make the start and finish date the same in this case.

Reminder dates

This report will list all dates that have reminders of your choice.

Steps

1. Select the reminders you want searched and listed.
2. Enter the start and finish date parameters.

- the report will be generated

Generate a monthly calendar

A calendar for the currently selected month can be printed out on to an A4 sized sheet of paper. These are useful for monthly planners as plenty of space is available in each day's box for writing reminders.

Graphing numeric data

This allows you to plot numeric data graphs VS Dates. More than one data type can be selected.

Steps

1. Select *Graph numeric data*
2. Select one or two numeric data items
3. Enter your start and ending dates for the period required.
4. The graph is plotted.

(this page is intentionally left blank)

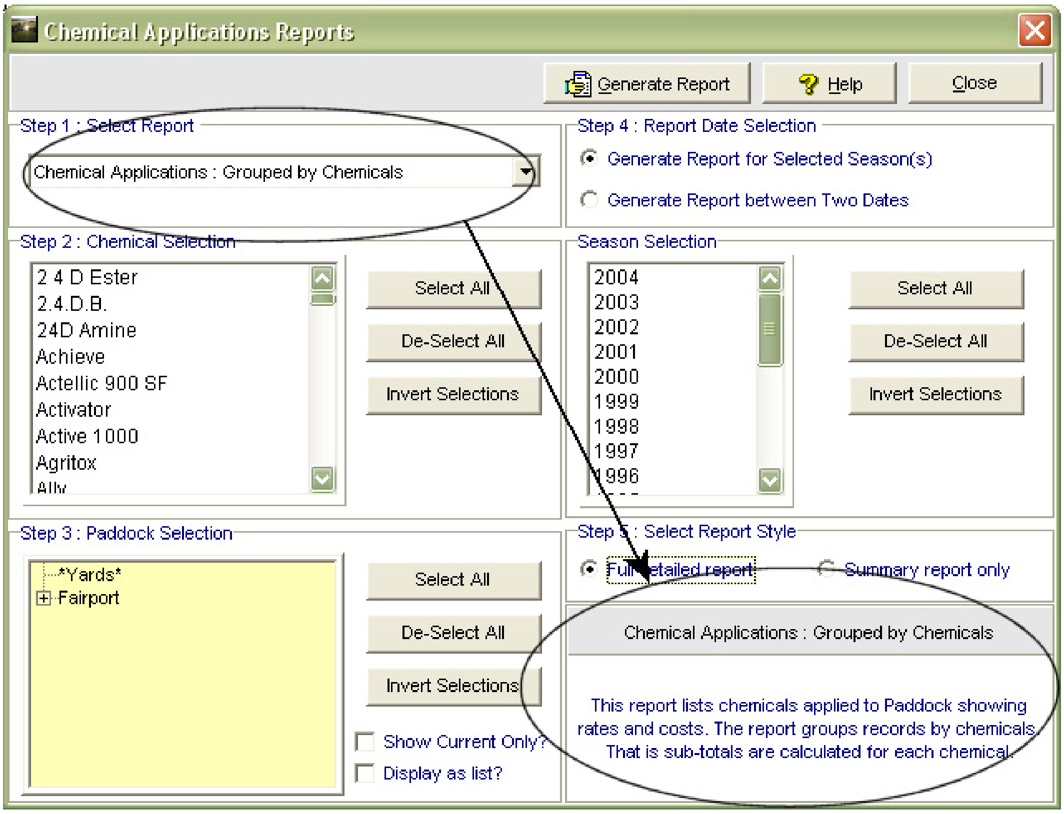
Chapter 10

Generating reports and graphs

Chapter contents

General information

The number of reports and graphs available in **PAM** is vast. We have never actually counted them but as the selection methods for choosing the report content are so versatile, the combinations and permutations are endless. Don't let that daunt you. This is great news for you. You can tailor the reports in your own special ways. It would be pointless to describe every possible report here in the manual. We have taken care when creating the menu options to be as descriptive as possible.



To help you understand the type of report each option will generate PAM displays a short description. See above.

Setting up reports

In general the steps are :

Find the report you're looking for on the *Reports* menu or a sub menu of the *Reports* menu.

PAM will display a report selection dialog.

For help on operating the report selection dialogs, check on-line help.
Each report has a small description about it in the bottom right hand corner of the dialog box. To see the description for each report, choose each report from the pick-list in the top left corner of the dialog.

Report output menu options

Screen - print preview

Reports are always first displayed in the print preview screen.
To view your report prior to printing, or to save paper, or to just check a report without intending to print it.

Buttons

Zoom buttons

These are used to zoom in and out on the report in the preview screen to suit your needs.

Page Navigation buttons

To skip from page to page.

Printer Settings button

To change your printer or its settings.

Print button

You can print the report after it is previewed by clicking on the printer button.

Export button

To send the report to a text file or to a “CSV” (Comma Delimited File) click on the “Export” button…

Export options

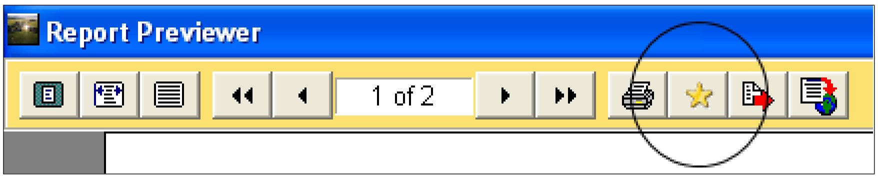
File - (text file)

This option allows you to create a text file that can be later printed, imported into a word processing program or sent on a floppy disk to your consultant.

CSV - (Comma Delimited File)

This option allows you to create a file that can be read directly into Microsoft Excel.
You will be asked to enter a filename. You will see a typical Windows file save dialog. You can send your file to any folder or to a floppy disk. **PAM** will give your filename an extension of "CSV".
To create a file on a floppy disk in drive A:, select drive A: from the drive list.

Setting up your list of Favourite Reports



Having generated a report, if you would like to save the selected report style to a list of favourites, simple click the **Star** button on the report preview screen.

On saving the Favourite report, you have a chance to give it a name of your choosing. Your list of favourite reports can be accessed via *Reports / Favourites.*

Why do some reports take a long time to generate?

We believe the reports in **PAM** are well worth waiting for, even if some of them do take some time to generate!
PAM's database files are relatively small in relation to those used in many other database systems used in other applications. In many cases users may need to wait *hours* for a complicated report to be generated, so in fact we are lucky that the sizes of the data files in **PAM** are relatively small.

Data collection forms

To make it easier for you to gather the data for **PAM**, we have provided you with the facility to print out pre-formatted data collection forms.
The steps are :

1. Select the *Data collection forms* option on the *Reports* menu, then choose the data collection form you require.
2. Print it out and carry it with you in the tractor or vehicle to write down your events.

(this page left blank intentionally)

Chapter 11

The Inventory Systems

Chapter Contents

The Inventory of Consumables

This system can accessed from the *Data entry* menu and also from the **Tools** button menus on the *Configuration/Consumables* tab pages for each consumable type.

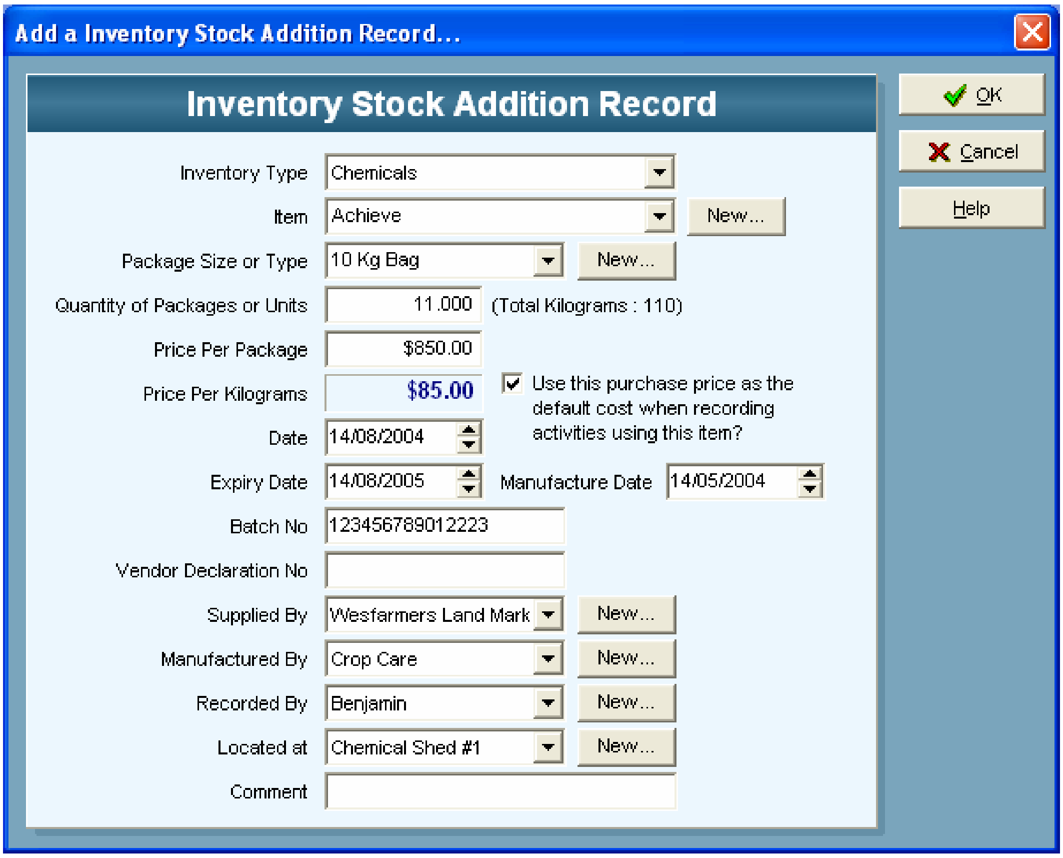
Overview

Using the inventory is optional. You can begin to use it at any time in the future if you choose. Furthermore, you may use it for some consumables and not for others… the choice is yours.

You do not need maintain re-order points and you will not be warned or denied access to data entry of consumables if your stock levels run out.

Before you can use the stock on hand report for any consumable you must record your first purchase or stock adjustment for that consumable.

Purchases



To record a purchase, click **Add Stock Item…**
Select the item you're purchasing from the list… or click **New…** to add a new item on the fly
Now select a package size.

Pack Sizes

Pack sizes help you enter purchases and help **PAM** calculate the price per purchase unit of consumables. **PAM** is only concerned with the cost per purchase unit, not the pack sizes. It won't matter if you delete and re-create these pack sizes as they are not used in reports or for any other purpose than making it easier for you enter purchases of consumables.

If you purchase items in 20 Kg. Bags or 200 Litre drums, then you can create these "pack sizes" in the pack sizes list. (You can set this list up in advance via *Configuration/Units of Measure and Pack Sizes*

Having selected the pack size, select the number of packs you purchased.
The price you used last for the consumable will be displayed… alter this price accordingly if necessary.
The date will default to today… alter this if necessary.
If the consumable has a "Batch Number"… enter it
To keep track of the whereabouts of your consumables… pick the location from the list (or create a new location on the fly).

Using the purchase price as your default cost

If you want **PAM** to use the purchase price of the inventory items for costing applications on paddocks or mobs then make sure you check that check box option. You may think this will create an uneven cost situation between paddocks or mobs for gross margin comparisons… Don't worry! You can use the… average inventory purchase costs option in the backdate costs facilities which you'll find under the **Tools** buttons on the various consumables tab pages under *Configuration/ Consumables.*

Back-Date Costs

…dialog under the **Tools** buttons on the various consumables tab pages under *Configuration/ Consumables.* This enables you to enter your prices "as they come" during a season and allow **PAM** to level them out later when you've finished the season!

Adjust Inventory Levels

If you do a physical stock take and discover that your stock levels do not match those in **PAM**, use this option to correct the program. Use a negative number to lower the stock level, a positive number to increase it.
Use the price to alter the price if applicable.

Delete

You can delete an inventory entry whenever you like. Highlight the entry you want to delete and click **Delete**.

Transfer Location

You can move an inventory item from one location to another. Highlight the entry you want to move and click **Transfer Location**. You can move all or some of the inventory.

Edit

This can be used to adjust stock levels and prices. Highlight an entry, click **Edit**, make the changes.

Stock on hand

This is a report that can be generated as at any date… click the **Stock on Hand** button, choose the date… view the report.
Stock on hand by batch number reporting will assist you in knowing which batches are totally consumed. There is a special "Tools" option that you can use to adjust the stock levels of batches to zero when they are totally consumed.

Transactions Report

This report will list all stock movements between the two dates you select. Like the stock on hand report, it will also produce a stock balance report.

Browse

This button will access the browse or spreadsheet view of the stock on hand situation.

Batch Numbers and Stock Levels

Using the special facility under the “Tools” button you can automatically zero the stock level of a Batch Number. This facility is extremely useful when you know that a particular Batch has run out but the inventory is still showing a stock on hand value (even perhaps a negative stock on hand value).

To reduce the inventory of a Batch to zero, select the purchase record on the main inventory screen and choose the special “Tools” option.

This facility will also remove the zero-ed Batch Numbers from the pick list of Batch Numbers when you are entering activies.

Inventory of Harvested Produce

You don’t need to anything to get this data system to work apart from telling **PAM** which of your harvest delivery points are “on farm” facilities. See Chapter 3, page 49.

As you deliver your harvested produce to your on farm delivery points they will be displayed in this inventory.

Selling or Using Stored Produce

Select the stored produce on the grid and click this button when you want to record the selling or use or any of the stored harvest. **PAM** will allow you to enter the quantity sold or used, the price and the date.
You then choose one of the following :

Sold Commercially

If you choose this item, you'll be asked to supply the harvest destination from the list of those harvest destinations that are not "on-farm".

On Farm Crop Seed

The price you enter will be inserted into the Seed/Plant price field in the *Crop Types and Associated lists* screen. The price will be used as the cost to your cropping enterprise the next time you use that seed for planting.

On Farm Stock Feed

If you choose this item, you will then need to select the name used for this crop type and variety in the Supplementary Feeds consumables list. For example, you may be calling the Crop Type / Variety : "Oats" / "McIntyre" a name like "Feed Oats" in the consumables table.
The stock feed will then be inserted into the *Inventory of Consumables* as a stock feed purchase.

Adjust Inventory Levels

If you do a physical stock take and discover that your stock levels do not match those in **PAM**, use this option to correct the program. Use a negative number to lower the stock level, a positive number to increase it.
Use the price to alter the price if applicable. **PAM** will always show the maximum price of all transactions.

Stock on hand

This is a report that can be generated as at today's date only and will be a report version of the data displayed on the grid… click the **Stock on Hand** button … view the report.

Transactions Report

This report will list all stock movements between the two dates you select. Like the stock on hand report, it will also produce a stock balance report.

(this page is intentionally blank)

Chapter 12

Quality Assurance Records

Chapter Contents

QA Records

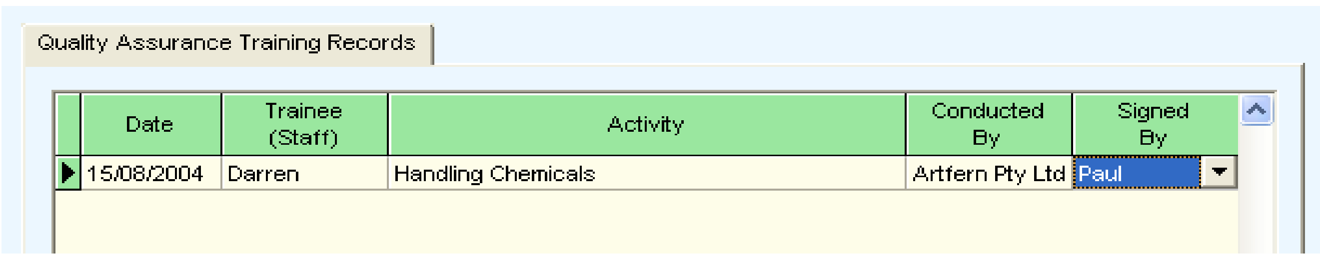
This system can accessed from the *Data entry / Quality Assurance Records ...*

Overview

PAM's production recording systems enable you to keep good production records for your QA compliance. The inventory system enables you to keep track of chemicals and other consumables and their batch numbers, manufacturers, expiry dates etc.

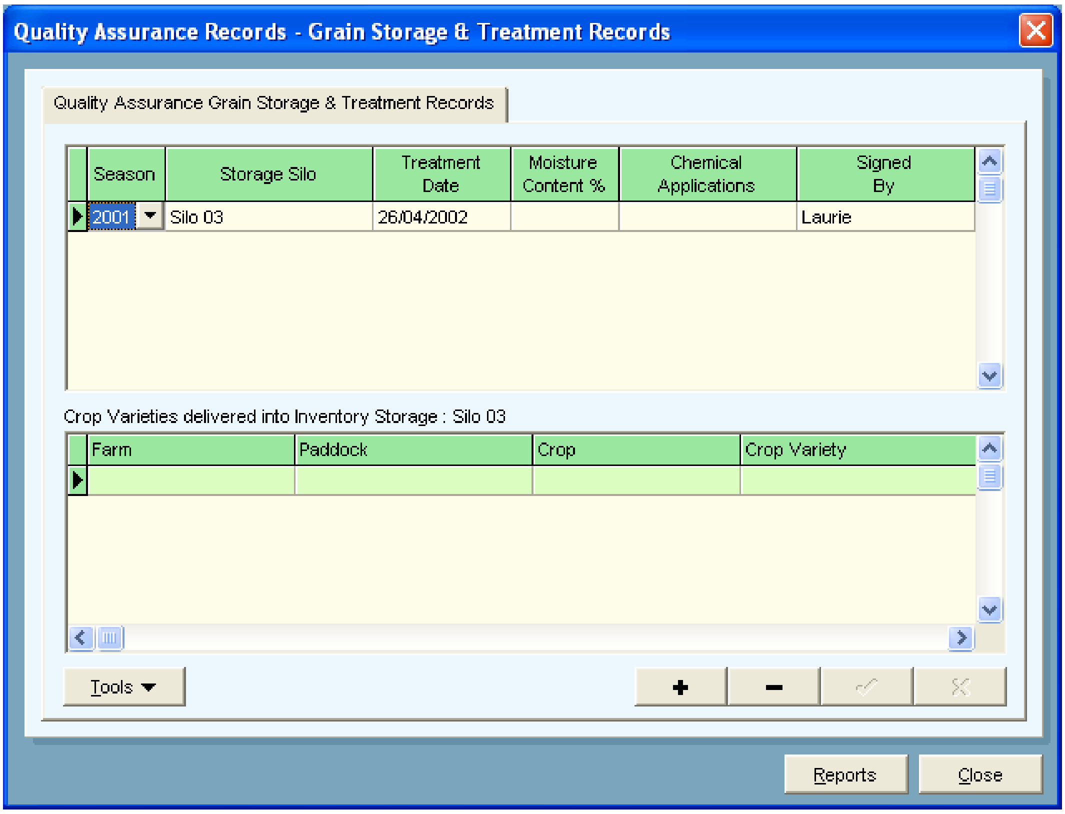
In addition to these records **PAM** QA Plus and **PAM** Ultracrop enable you to maintain other QA compliance records like Corrective Action Records, Training Records and Approved Supplier Records.

Using these data entry forms is quite simple. Select the required option. Start entering a new record by either clicking the 
Or pressing the Down Arrow on your keyboard.



You will notice that on each these QA Records data entry screens is a Report button. The reports can be filtered by date span and for other parameters.

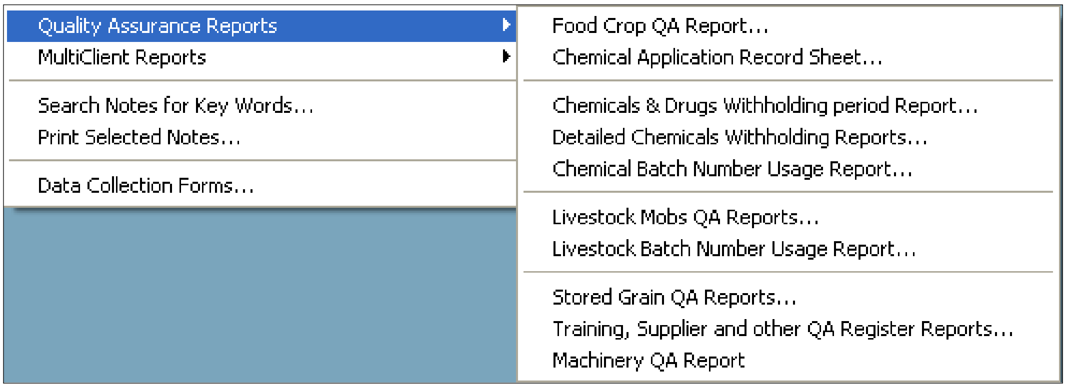
Grain Treatment Records



To record treatments of stored grain or harvest produce, choose *Quality Assurance Records / Grain Storage & Treatment Records …*

Select the required grain storage facility and enter the treatment date and chemicals used. The used chemicals will be deducted from your inventory of consumables (if you are using it).

Quality Assurance Reports



To find QA specific reports look under *Reports / Quality Assurance Reports.* Of course many of the other standard report will be of use to you when you have a QA audit.

Chapter 13

The Browse System and User Defined Reports

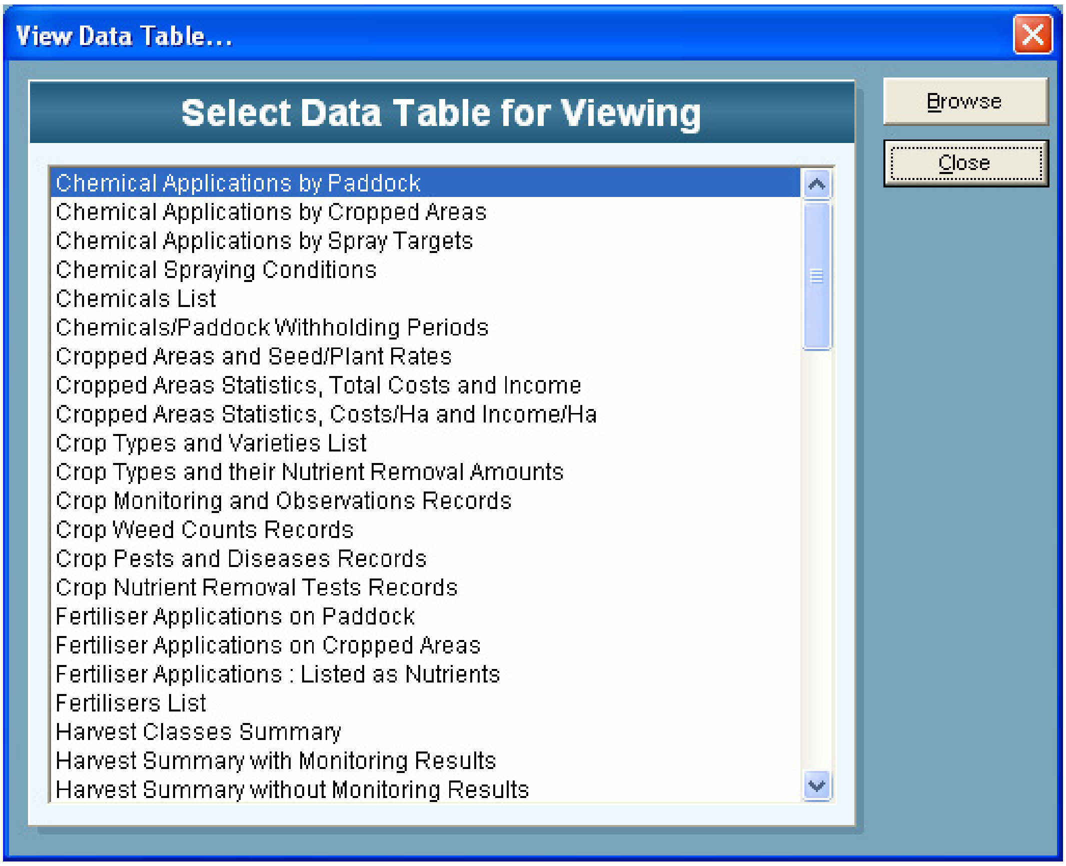
Chapter Contents

Browse any dataset…

At any time you can access any file in the **PAM** system via the <F4> hot key facility *Utilities* / *Browse any dataset*. Or … the toolbar button shown above

To select a table for viewing

Simply click on the table you require and click **Browse**
Browsing a data table means allows you to view the data in a spreadsheet layout. All fields and all records are available.



The Buttons

Column “Mode” Buttons

Select Print Columns : The column titles become active buttons. By clicking on the title of a column you will select that column for printing. It will change colour so you can easily see the columns chosen.

Set Column Sort Order : The data in each column can be sorted in either ascending or descending order to suit you requirements. Click on a column title while this column “mode” is selected. The sort order menu will pop up… choose your sort order.

Drag Columns Left or Right : To arrange your columns in your preferred order across the screen. Click on the title of a column and while holding down your mouse button, drag it left or right.

Other Buttons

Freeze Columns : Will lock the left most column and thereafter the next leftmost column. This enables you to hold those locked columns in view while panning to the right.
UnFreeze Columns : Unlocks the frozen columns.
Filter : Will display the filter dialog which enables you to filter out unwanted records … more on this later.
Print Preview : To preview the selected columns in the print previewer.
Print : To Print selected columns.

Why – Browse any dataset?

When you become familiar with this option it will become very useful to you.
To be able to view all the records in your database in a spreadsheet or browse type view is very revealing and is a good way of picking up any mistakes you may have made when entering the data. In some datasets you will see fields that can be edited whilst in this system.
Editable fields are shown in bold type.

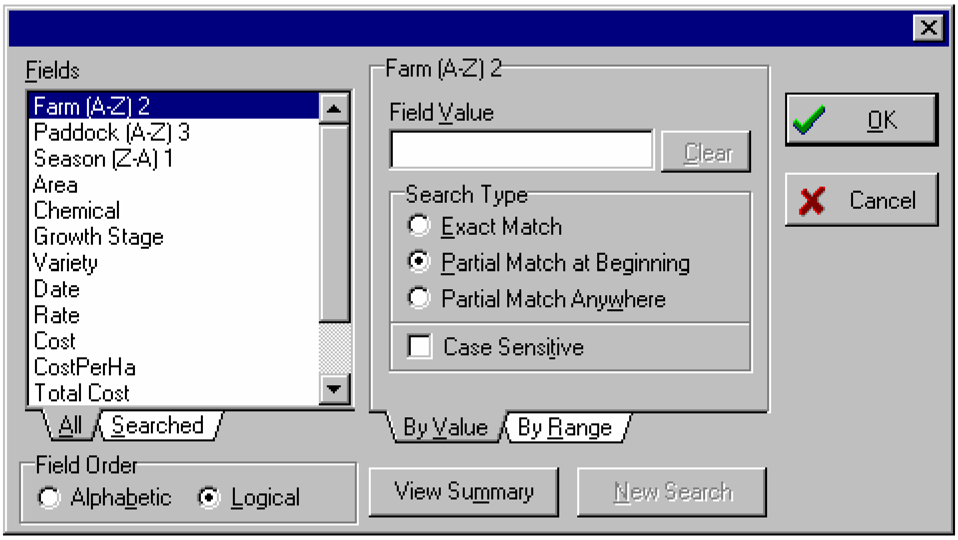
See the previous Chapter… User Defined Reports for more information on options available to you in the Browse system.

To Create a User Defined Report

1. Select the *Browse any dataset* option from the *Utilities* menu or from any of the Paddock or Livestock Activities Diaries or the Paddock Season screen.
2. Select the data view you require to construct your report.
3. When it is displayed on your screen…
4. Select the columns for printing by choosing that "Column Mode" You may need to move some columns right or left to suit your needs… choose the "Move Columns" mode to do that, then holding down your left mouse button, drag the columns to your preferred position
5. To sort your listing into your preferred order, select the "Sort Columns" mode and click on the column titles with your left mouse… a pop-up menu will appear giving you the sort options.

6. You may require the data to be filtered… to exclude unwanted rows… for example you may only want to view one farm, one year, on chemical….
   Click the **Filter** button to enable the filter system…
   After you click **OK** to leave the filter dialog, the data will be immediately filtered to your requirements.
7. All that's left to do is to print the report…. Or preview it then print it.

The filter dialog features



Fields

This is the list of column headings in the current data set.
To set a filter on a field, click on it.

Field Value(s)

Having selected your filter field, type in a value to create the filter condition.
Let's say we have 4 farms,
Alpha
Beta
Delta
Gamma

We only want to look at data from the Delta farm… so we type “D” in the field value. Just “D” is enough because our farms all start with unique letters… if they didn’t we would need to type more than “D”.

Search Type

If we can get away with using the first or the first few letters of our farm name, then the option “Partial match at Beginning” will work well.
If we need to type the whole word to ensure the program gets the right filter condition… use “Exact match”
If the letters we type occur somewhere other than the beginning of the text in the field values… use “Partial match anywhere”

By Value / By Range

If we want to set a range for our filter condition, use the “By Range” option : We then see the “Starting Range”, “Ending Range” options… type in your low and high range values.
Eg. If you want your data set to span from 1997 to 1999, type those seasons in the boxes.

View Summary

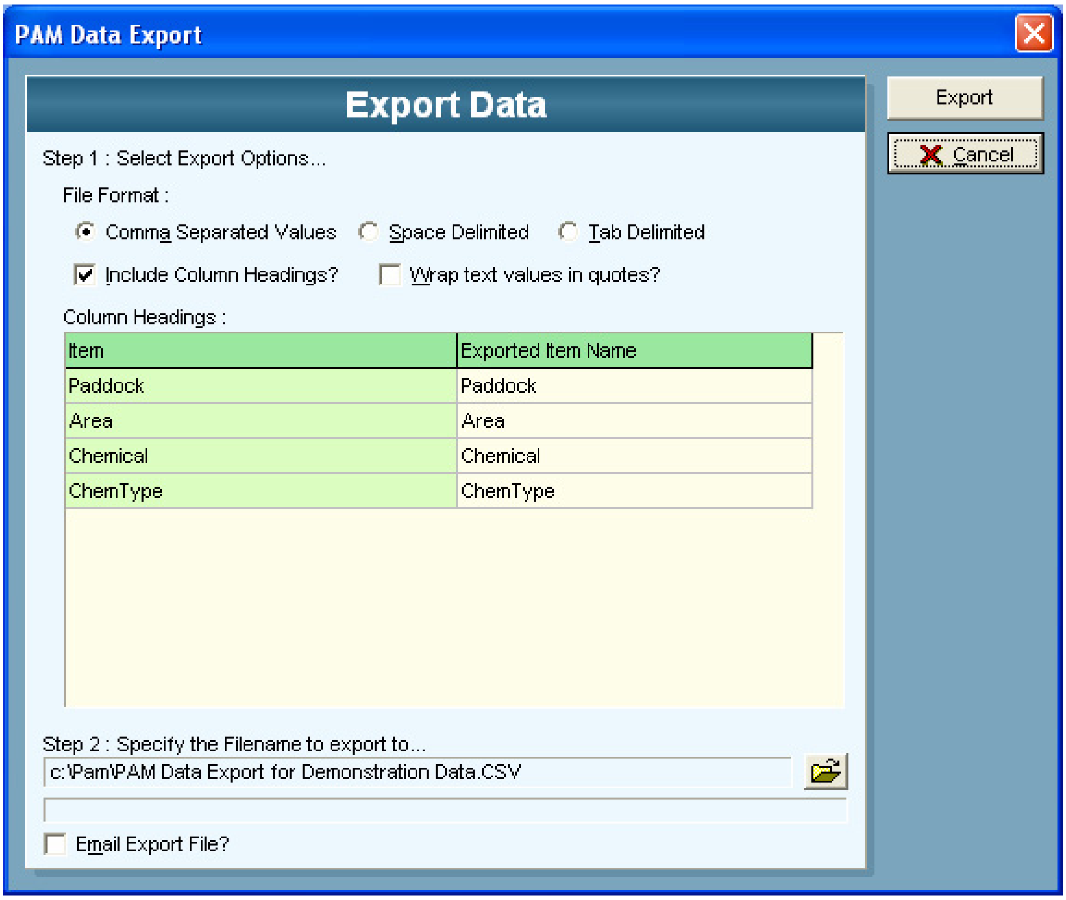
When you have set up one or more field conditions, click **View Summary** to see the conditions you have set.

All / Searched

As you select fields for setting filter conditions, they become members of the “Searched” list.

The “All” list will always display all fields (column headings) in the data set list.

Export Data



The Export button will display the dialog shown above. Use this facility to export PAM data to a spreadsheet program or another database program.

The steps:

1. Select the data export style… comma separated (which is ideal for Microsoft Excel), space or tab delimited. It is a recommended that you include column headings and if there is a chance that your data might contain commas, use the ”Wrap text values in quotes” option.
2. Choose names for your column headings … do nothing if you are satisfied with PAM’s default names.
3. Choose the file name and folder for your exported file
4. Tick the “Email Export File?” if that is your requirement.
5. Click on the Export button.

Chapter 14

Utilities

Chapter contents

General purpose diary

See Chapter 9.
We thought the General Purpose Diary was worthy of a chapter of its own!

Numeric Calculator

Overview

The numeric calculator is used like your normal desktop calculator. It can be called from the main menu in **PAM** using <F3>. When you want to get it off your screen, minimise it… you can then call it up whenever you want.

How to access and operate the numeric calculator

The calculator is operated by using the number keys either on your numeric keypad or across the top of your keyboard.
It is recommended that you use the numeric keypad, as all the "operator" keys are located there as well.

Importing a value

If you were editing a numeric field when you accessed the calculator, you can import the value from that field by highlighting the value in the field, pressing Ctrl+C (that is the standard Windows Copy technique) then click on the calculator and press Ctrl+V.

Exporting the result

To copy the value from the calculator to your data, follow the same steps as above… Ctrl+C to copy, Ctrl+V to paste.

Browse Any Dataset

See Chapter 12.

Farm Filter

If you are running more than one farm, the farm filter can be used to run **PAM** in single farm mode.
You can set up as many farms as you like in **PAM**, however all the data is stored in one set of data files. Therefore, if you want to run reports for a single property, or have your pick list of paddocks only display the paddocks of a single farm, you will need to use the farm filter.

What does the farm filter do?

The farm filter is used when pick-lists are created to filter out any paddocks, which do not belong to the currently active farm.
In the Paddock-Year screen and in the Paddock Activities Diary, paddocks that do not belong to the active farm are not displayed.
Whenever reports are generated, paddocks that do not belong to the active farm are not included in the selected reports.

How to set the farm filter

The farm filter system can be used to select one or more farms and exclude one or more farms from the current focus. This provides an extremely flexible filtering system for those who have more than two properties.

At most times you can see which farm is currently "active" as it will be displayed in the top right hand corner of your screen.

When is the farm filter active?

Once set, the farm filter is active throughout the program with the exception of the rainfall system and the General Purpose Diary.

Should I use the farm filter if I only have one farm?

No. There is no point in setting the farm filter if you only have one farm.

Farm Filter status

The status bar of your main screen will display the farms that in the current filter list… those that are excluded from the current filter won't be shown

If I have more than one farm, when should I and when shouldn't I set the farm filter?

There is no requirement for the farm filter to be set to make the program run correctly. It is provided for the convenience of those who want it.

Machinery Costs Calculator

Overview

The machinery costs calculation screen is provided to help you more accurately calculate the operating costs of your machinery. The machinery cost calculator can be used to determine the costs of each machine and tractor independently.

How to access and operate the machinery costs screen

This calculator screen can be called up from the main menu at any time using <Alt+F3>.

Each machine you add (or have added) in the machinery list is represented in the list here

To edit information, simply click on the fields with your mouse and start typing. If you want to use the calculated costs on this screen to update your machinery operating costs, use the appropriate radio buttons on the top section of the screen.

To Print a record

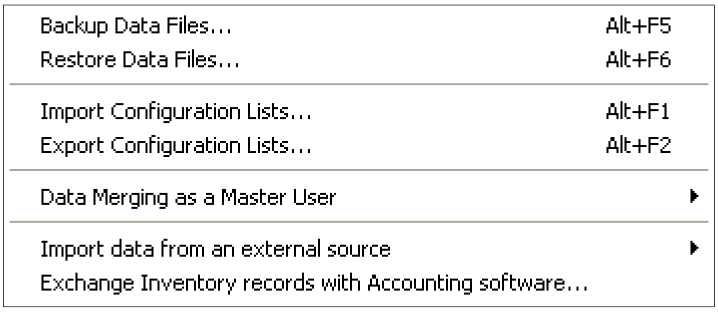
Click on the Print button

Printing all records

Click on the **Browse** button and use the print facilities on that screen.

This machinery cost calculator can also be view via the **Tools** button menu options under *Configuration / Machinery, Manual Tasks and Staff…*

Back up and restore and Transfer data files



It is absolutely **imperative** that you regularly back-up your database files to a floppy disk.
PAM will ask you if you want to back-up the data files each time you exit out of the program even if you have already backed up using the Utilities menu.

PAM has an "intelligent" back-up and restore procedure, which will inform you as to the number of disks needed.

You may back-up (and restore) data files to (or from) a floppy disk and/or your hard disk. Please back up to floppy disks AT LEAST. The hard disk back-up is recommended as well, as it gives you a fast restore facility should you make a bad mistake or should a data file become corrupted and not easily recoverable.

It is also advisable to make a series of floppy disk back-ups.

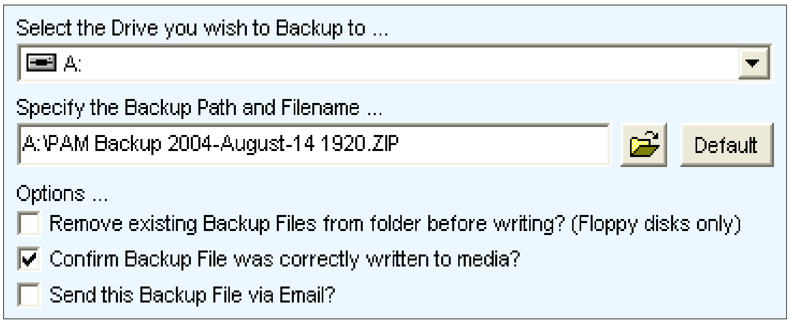
TIP
Have one back-up disk (or disks if more than one is required) for each month. Mark them "JANUARY", "FEBRUARY", "MARCH", etc.
ALSO keep a "CURRENT BACK-UP" disk (or set of disks) to use as your daily back-up set.
At the end of each month make a back up to the disk marked with the relevant month (ie. the month just ended).

This method will ensure that you never get more than a month behind should a disaster strike and your current back-up disk becomes corrupted.

Keep your end-of-month disks at a separate location in case of theft or fire.

Backing up

Steps
1. Click on the data sets you want to back up.



2. Choose the destination drive for the backup file.
3. Specify the filename ... It is recommended that you don't change the file name. It is a specially constructed filename made up of the date and time of your back up.
4. If you are backing up to a floppy disk, choose to delete any existing files from that diskette before writing the new back up file to it.
5. The system can check to see if your back up file will restore successfully in the future... Click on the "Confirm Backup File was correctly written to media?" option to enable this feature.
6. Click on the "Backup" button to proceed.

Restoring data files

Unless you are in a group situation where you are sharing your data with others, this process is used only in cases of emergency or if you have made major errors in data entry and can not recover the situation or if for some reason your data has become corrupted beyond recovery.

The most convenient way to restore data is to have used the HARD DISK back-up facility - and to simply restore from the hard disk directory.

Please note :
You must back up to a floppy disk as well because you may have a hard disk crash and lose both your data files and your back-up files on the hard disk.

If restoring from a floppy disk, you will be prompted for disk #1.
If more than one disk was used to back up the data, you will be prompted for each disk in turn.
PAM will check each disk before restoring the data. Each disk has on it a unique identification code.

What can go wrong?

If you lose one of a set of back-up disks, **PAM** will not be able to proceed past the point of the missing disk. Each disk has a unique identifier and the restore sequence must follow the back-up sequence. This will be quite critical when a data file is split across two disks.
Should **PAM** for some reason lose track of the sequence of disks there are ways to rectify the situation. If you ever find yourself in this situation, please contact your dealer for help.

Restoring specific files

When you need to restore files, you have the opportunity to select specific files (or groups of files).

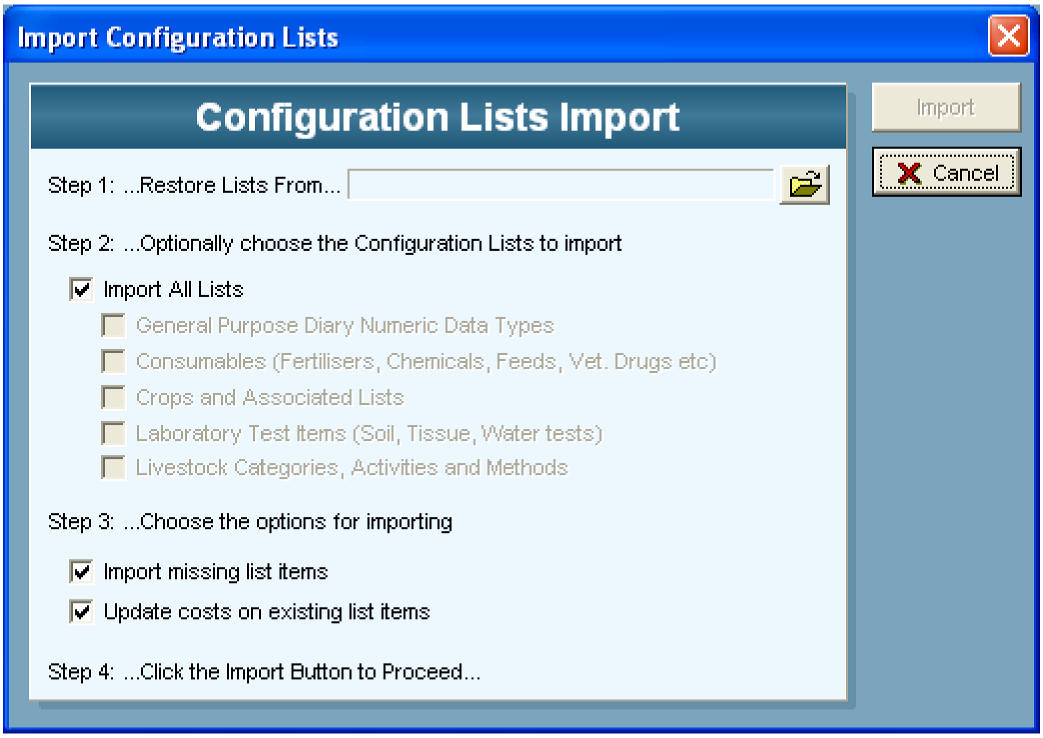
Why?

There are two reasons why we have provided this facility in **PAM**.

1. For those people who have a site license and are sharing the data between two or more computers. In some cases one partner enters the livestock data while another enters cropping data. By restoring specific data, they avoid overwriting their work.
2. In the circumstance when you discover belatedly that a file has become corrupted and you have in the meantime done considerable amounts of data entry in another area of the program. You can avoid overwriting the work you have been doing by restoring (and overwriting) just the data that has become corrupted.

To restore specific data, select the data set(s) with your mouse or <Space bar>.

Import Configuration Lists



Use this option to set up your lists using the **PAM** lists that have been set up by another **PAM** user. Setting up lists can be very time consuming. This facility can save you that time. Use an exported lists file from a friend or from your dealer.

Step 1, locate the List file.
Step 2, choose the lists to import.
Step 3, Choose the import options…
Import missing list items (This will update your lists to include those items you don't have)
Update costs on existing items (This will update items other than the main list item … Eg. prices and associated information)

So … if you only want to update the prices and associated information in your lists from the incoming data file, tick only the bottom option.

Export Configuration Lists

Use this option to export your lists (crops, varieties, chemicals, fertilisers etc) to another **PAM** user.

Export Crop QA Data

Use this option to export data related to your cropping activities for user selected Season / Farm / Paddock / Crops. Special **PAM** MultiClient programs exist which can store cropping QA data for crop QA and traceability purposes.

Data Merging

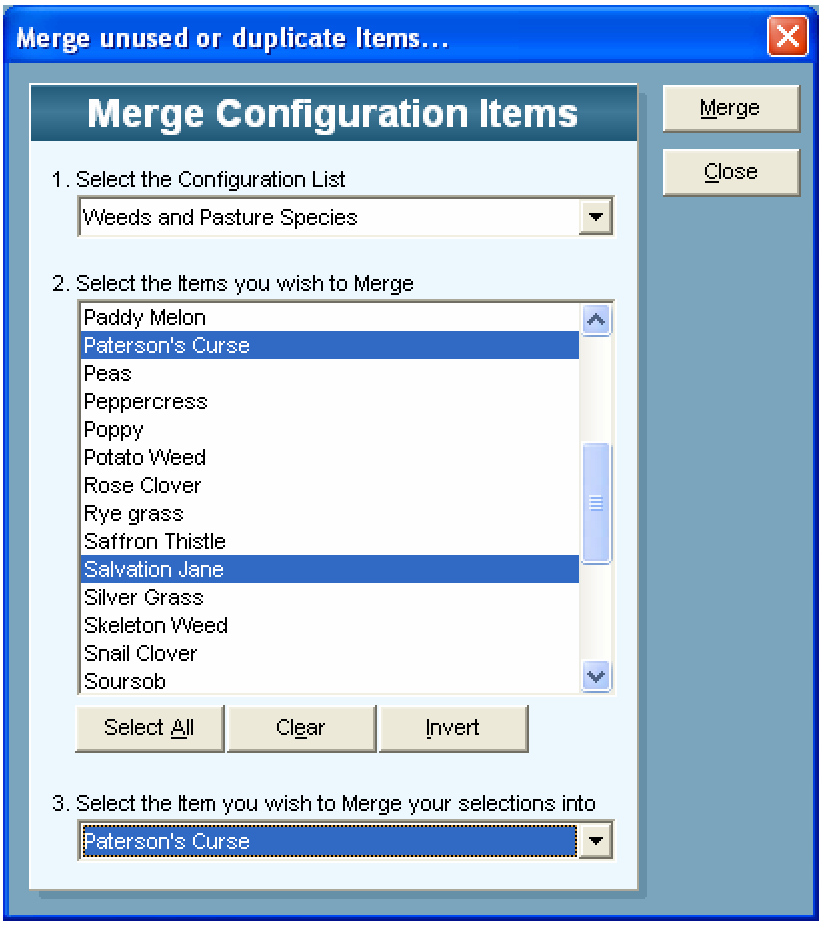
You can purchase a special add-on facility for your **PAM** program to enable you to merge data with one or more other **PAM** user. The situations where this is applicable are where 2 or more households run the farming operation and want to enter data simultaneously on separate computers which are not networked. There are special help notes available for these facilities which can be downloaded from the Fairport web site / Support pages.

Database Maintenance

Use these options to

- Compact and Repair your database… If you have deleted many records this option will compact your file and remove deleted records
- Validate database structure…use this if you suspect your data is behaving strangely or you see data related errors that were not previously there. **PAM** performs this on start-up in any case… but you can re-do it using this option!
- Update Paddock and Crop Financials… use this to rebuild the total income and costs of all paddock and crop related activities. These financials can be seen in the *Season Costs* screen from the **Tools** options on the *Paddock-Season* screen.
- Update Livestock Activities Costs… use this to rebuild the total costs of livestock related activities.

Merge Configuration List Items



This facility has been provided to enable you to clean up your lists.

Examples of when you might use this facility: If you have several chemicals in your list that are effectively the same thing, or if you have several weeds that are the same thing but have been entered using different names.

All lists in **PAM** have been catered for.

Import Data from an External Source

This menu option at the time of writing has only one sub menu option … *Harvest Deliveries.*
Harvest deliveries data for your crops can be imported from harvest acquirers. At the time of writing this can be done in Western Australia via CBH's Loadnet system. South Australia's bulk handling authority (Ausbulk) is also working on an data export system that will feed into **PAM**.

Cotton Ginning Results can be imported into **PAM** via the Cotton Ginning Results screen which appears automatically when you choose cotton as one of your crop types.

Exchange Inventory Records with Accounting Software

Fairport has been working with AgData to facilitate the exchange of consumables inventory data. This will enable you to enter your purchases records once (either in **PAM** Or Phoenix) and the data will be exchanged between the two programs.

Our advice is that you should always enter purchase records in PAM if you are using Batch Numbers as Phoenix doesn't support Batch Numbers in its inventory system (at the time of writing)).

Special help notes for this facility will be available from the Fairport web site / Support pages.

(this page is intentionally blank)

Chapter 15

Trouble shooting

Chapter contents

Trouble !

Trouble can happen (and according to Murphy's Law it will!). In computing trouble can occur on three fronts.

- **Hardware**
- **Software**
- **Data**

Often it is difficult to tell where the fault lies. Software depends on the hardware to be suitable and capable of performing the tasks demanded of it. The data (your data files) depend on both the software (**PAM**) and the hardware (your computer and printer) to perform the tasks demanded of them.

Data trouble

On the data front, your best defense against trouble is to have a good backing up strategy in place. Follow the suggested system in the previous Chapter.

PAM provides you with a backing-up system to make this possible. Read the section in the previous Chapter regarding "Database Maintenance"... These are trouble-shooting facilities.
If for any reason **PAM** refuses to run due to perhaps corrupt tables, you can try running the first option on the *Database Maintenance* menu.

Software trouble - The error trapping system

Although this program has been extensively tested, there may still be some bugs lurking in dark corners, which may cause you problems. As this system was put together by humans (and "to err is human") it is quite possible we may have missed some problems.

The error trapping system built into this software is designed to trap any errors we have missed and to allow you to proceed with your work as much as possible without impeding you. However, if you find an error in the program that causes the error trapping

screen to appear, it is advisable to firstly, print the error message out on your printer (there is a "Print" option on the error trapping system dialog box) and send it via your dealer to Fairport Technologies, then choose "Retry" to see if **PAM** can recover from the error. If not select "Ignore" to restart **PAM** from the top. Depending upon circumstances, the error trapping system may have an option - "Default"; try that first if it is an option. Selecting "Quit" will drop you straight out of the program.
When an error occurs it (the error) *can* cause memory problems and consequently further error reports. If you are experiencing multiple errors, it is advisable not to proceed, but to exit from **PAM** and re-start it.

PAM can't find or open a file

If **PAM** reports that it can't find a file or create a file during the running of the program, you may need to go out of the program and re-start. If this happens again and you are unsure of either
a) which file it can't find or can't create or ....
b) how to locate files on your hard disk
you should contact your dealer and seek assistance.

PAM Serial Number problems

The customer serial number is a 9-digit number, which is generated by a mathematical formula, based on your trading name and a special unique number generated by your computer. If you ever upgrade the Windows version on your computer, a new serial number may be required.

What if you overrun your 20 run times?

You will still be able to access the program registration system. The options to Print your registration form and to Enter your serial number are always available to you when you start PAM regardless if you can no longer run the program due to the 20 runtimes having expired.

What if you want to change your trading name?

You can change your trading name by clicking on *User details* when you display the "About" dialog…. You'll find this under the *Help* menu on the main APM screen.

Checking data files for possible structure changes

PAM performs this check every time it starts and every time you access a budget database or restore an old database.
If you want to perform this task manually, use *Utilities / Database Maintenance / Validate database structure*.

I want a fresh start!

If you delete the file PAM.MDB from the **PAM** folder via Windows Explorer, **PAM** will not be able to run. However, this is the best way to have a fresh start.
You will need to re-install the program from the CD or disks.

Index

.